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STATE AIR POLLUTION IMPLEMENTATION PLAN PROGRESS REPORT, JANUARY 1 TO JUNE 30, 1973

Environmental Protection Agency
Research Triangle Park, North Carolina

September 1973

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This report focuses on the progress which States have made in carying out their Air Implementation Plans. Air Quality and Source Emission Data in this report were collected during the report period ending December 31, 1972. The following topics are summarized in Part II: Air Quality Monitoring, Source Emissions, EPA Actions on State Implementation Plans (SIP), Plan Revision Management System, low sulfur fuel supply, enforcement activities, litigation, State and local agency resources, and current activities. The SIP implementation is described and evaluated in Part III. The Plan Revision Management System is a management tool for identifying regions which have a "potential problem" and also monitoring sites within a region. The results for 17 Air Quality Control Regions which were reviewed are summarized. State progress in the areas of resources, legislation, delegation of EPA authority, enforcement, and Federal assistance is summarized. Enforcement of State Implementation Plans are evaluated in Part IV. State and Local operating funds available to control agencies of funds are listed by source of funds and type of assistance in Part V. The national issures impacting on the SIP are discussed in Part VI. Most are a direct result of court decisions involving of court decisions involving interpretation of The Clean Air Act.

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Part One | Introduction

Foreword

This is the first report focusing on the progress which States have made in carrying out their air implementation plans which were required by the Clean Air Act. A good start has been made and the required improvement of air quality is becoming a reality. This success is due largely to the combined efforts of State and local air pollution control agencies, environmental groups, EPA headquarters and Regional Office personnel and, of course, substantial committments by industry and other pollution sources.

The State Implementation Plan program is a pioneering effort and is inherently a dynamic process. Many new programs are currently active, including transportation controls, significant deterioration of ambient air quality, the maintenance of standards through the control of indirect sources and land-use planning, and the interaction of the plans with short-term energy supply problems. These will result in revisions and additions to Plans for many regions.

Although many portions of State plans have been approved, it has been necessary for EPA to promulgate regulations in some States. As a matter of policy, however, EPA promulgated regulations will be rescinded as States are able to adopt necessary regulations and develop resources to implement their own control programs.

With the approval of most portions of SIPs, a substantial increase in State and EPA enforcement actions is anticipated as various requirements become effective. These actions by the State and/or EPA will be needed to complete establishment of compliance schedules and to ensure that sources remain on schedule and in compliance with the requirements of State plans.

The discussions which follow point to the progress made, indicate where more progress is needed, and discuss the issues and problems which impact on State Implementation Plans. This progress report covers the semi-annual period ending June 30, 1973. A similar progress report will be completed in March 1974 to cover the semi-annual period ending December 31, 1973.

B J Steigerwald
B. J. Steigerwald
Deputy Assistant Administrator
for Air Quality Planning and Standards

Richard Wilson
Richard Wilson
Director
Division of Stationary
Source Enforcement

Acknowledgements

The preparation of this report resulted from information provided by the State and local air pollution control agencies, EPA Regional Offices, and from various EPA headquarters groups.

Future reports relating to State Implementation Plan progress will continue to be a joint effort between the Division of Stationary Source Enforcement, Office of Enforcement and General Counsel and the Office of Air Quality Planning and Standards, Office of Air and Water Programs.

Information on enforcement activities was provided by the Division of Stationary Source Enforcement, Office of Enforcement and General Counsel. Their contributions are gratefully acknowledged. Future reports will continue to focus on SIP actions and enforcement of State plans.

A list of EPA Regional Offices and the States served by the Regional Offices is included on the following page. Additional information on EPA air programs can be obtained by contacting the EPA Regional Offices.

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Abbreviations

AQCR	Air Quality Control Region
CO	Carbon Monoxide
CDS	Compliance Data System
DSSE	Division of Stationary Source Enforcement, EPA
EPA	United States Environmental Protection Agency
FR	Federal Register
HC	Hydrocarbon
ug/m^3	micrograms/cubic meter
mg/m^3	milligram/cubic meter
NADB	National Aerometric Data Bank
NAAQS	National Ambient Air Quality Standards
NASN	National Aerometric Surveillance System
NEDS	National Emission Data System
NO	Nitric Oxide
NO$_2$	Nitrogen Dioxide
NOx	Oxides of Nitrogen
OAQPS	Office of Air Quality Planning and Standards, EPA
OAWP	Office of Air and Water Programs, EPA
OEGC	Office of Enforcement and General Counsel, EPA
Ox	Total Oxidants
PRMS	Plan Revision Management System
RO	Regional Office(s), EPA
SAROAD	Storage and Retrieval of Aerometric Data
SIP	State Implementation Plan
SCS	Supplementary Control System
TSP	Total Suspended Particulates
§109	Clean Air Act: National Ambient Air Quality Standards
§110	Clean Air Act: Implementation Plans
§111	Clean Air Act: Standards of Performance for New Stationary Sources
§112	Clean Air Act: National Emission Standards for Hazardous Air Pollutants
§113	Clean Air Act: Federal Enforcement
§114	Clean Air Act: Inspections, Monitoring and Entry

Through these ten regional offices, assistance is provided to state and local authorities, industry, environmental groups, citizens, etc.

Region One
Connecticut, Maine,
Massachusetts, New Hampshire,
Rhode Island, Vermont
John F. Kennedy Federal Building
Boston, Massachusetts 02203
Telephone (617) 223-6883

Region Two
New York, New Jersey
Puerto Rico, Virgin Islands
Federal Office Building
26 Federal Plaza (Foley Square)
New York, New York 10007
Telephone (212) 264-2517

Region Three
Delaware, District of Columbia,
Maryland, Pennsylvania, Virginia,
West Virginia
Curtis Building
6th and Walnut Streets
Philadelphia, Pennsylvania 19106
Telephone (215) 597-9800

Region Four
Alabama, Florida, Georgia,
Kentucky, Mississippi,
North Carolina, South Carolina,
Tennessee
Suite 300
1421 Peachtree Street
Atlanta, Georgia 30309
Telephone: (404) 526-3043

Region Five
Illinois, Indiana, Minnesota,
Ohio, Michigan, Wisconsin
One North Wacker Drive
Chicago, Illinois 60606
Telephone: (312) 353-6942

Region Six
Arkansas, Louisiana,
New Mexico, Oklahoma, Texas
1600 Patterson Street
Dallas, Texas 75201
Telephone: (214) 749-1238

Region Seven
Iowa, Kansas, Missouri
Nebraska
1735 Baltimore Avenue
Kansas City, Missouri 64108
Telephone: (816) 374-3791

Region Eight
Colorado, Montana,
North Dakota, Utah, South Dakota,
Wyoming
916 Lincoln Towers
1860 Lincoln Street
Denver, Colorado 80203
Telephone: (303) 837-4831

Region Nine
Arizona, California, Hawaii,
Nevada, Guam, American Samoa
100 California Street
San Francisco, California 94111
Telephone: (415) 556-2320

Region Ten
Alaska, Idaho, Oregon,
Washington
1200 6th Avenue
Seattle, Washington 98101
Telephone: (206) 442-1200

Please address correspondence to Regional Administrator,
Attn: Air and Water Programs Division,

Part Two | Executive Summary

A. Introduction

The purpose of this report is to summarize significant activities related to State Implementation Plans (SIPs). This report covers the semi-annual period ending June 30, 1973. The next progress report, scheduled for completion in March 1974 will cover the semi-annual period ending December 31, 1973. Subsequent reports will cover a similar time schedule. A special effort will be made to decrease the time between the end of a semi-annual report period and the publication of a progress report.

Information in this and in future progress reports will cover the most recent semi-annual period. There will be some exceptions. Air Quality and Source Emissions Data in this report were collected during the report period ending December 31, 1972. The delay is due to the time required to collect, process, validate and analyze the extremely large volume of Air Quality and Emissions Data. Information on the status of SIPs, e.g., EPA approval/disapproval actions, Federal promulgations, enforcement activities, and other actions relative to State plans will be current. This type of information will reflect the SIP status for the most recent semi-annual period. Information on significant issues and problems impacting on the SIP process will reflect the status up to the time the final report is published.

The discussions which follow summarize the most significant aspects of SIPs and are intended to provide a broad view of the SIP process. Additional details on SIPs are contained in the body of the report and in the references mentioned in the text.

B. Air Quality Monitoring

Data acquired by state monitoring networks are to be submitted to EPA on a quarterly basis. The total number of monitors in 1971 is shown by type in Table 6. States have proposed to nearly double the 1971 capability by 1974.

A significant nationwide total suspended particulate (TSP) air quality problem exists according to results of TSP monitoring in 1972. Of the 213 AQCRs for which sufficient monitoring data have been obtained to permit evaluation, approximately 65% exceed one or both of the primary TSP NAAQS (Table 1). Fourteen of the 36 Priority III AQCRs for which there are sufficient data exceeded either the 24-hour primary TSP standard or the annual standard (Table 1).

The 1972 monitoring data indicate that SO_2 presents much less of a problem than TSP. Of the 154 AQCRs for which sufficient SO_2 air quality have been obtained, 27 AQCRs exceed either or both of the primary NAAQS (Table 2). Of the 60 Priority I or Ia AQCRs for SO_2, 17 AQCRs show concentrations in excess of the NAAQS (Table 2).

The national monitoring of oxidants is substantially less than for TSP and SO_2 but shows a significant oxidant problem with respect to the NAAQS (Table 3). Of the 54 AQCRs originally designated Priority I for oxidants, EPA has adequate ambient air data for 25 AQCRs. Eighteen of these AQCRs show oxidant concentrations in excess of the standard. Los Angeles exhibits by far the worst problem where 16 stations measured concentrations in excess of the NAAQS.

TABLE 1

SUSPENDED PARTICULATE MATTER

STATUS* OF AIR QUALITY

1972

PRIORITY** CLASSIFICATION	NUMBER OF AQCR'S	AQCR'S REPORTING		AQCR'S EXCEEDING ANY PRIMARY STANDARD
		At Least 1 Station-Quarter	Complete Annual Average	
I or Ia	120	116	106	99
II	70	61	47	26
III	57	36	26	14
TOTAL	247	213	179	139

*As of August 7, 1973.

**Federal Register, Vol. 36, #158, p 15488, August 14, 1971

TABLE 2

SULFUR DIOXIDE

STATUS* OF AIR QUALITY

1972

PRIORITY CLASSIFICATION	NUMBER OF AQCR'S	AQCR'S REPORTING At least 1 Station-Quarter	AQCR'S REPORTING Complete Annual Average	AQCR'S EXCEEDING ANY PRIMARY STANDARD
I or Ia	60	51	40	17
II	41	30	25	8
III	146	73	50	2
TOTAL	247	154	115	27

*As of August 7, 1973.

TABLE 3

OXIDANTS

STATUS* OF AIR QUALITY

1972

Priority***	Number of AQCR's	AQCR's Reporting at Least One Station Quarter	AQCR's Exceeding the Primary Standard
I	54	25	18
III	193	3	3**
TOTAL	247	28	21

*As of August 7, 1973

**085 Metropolitan Omaha-Council Bluffs, 1st highest = 200 μg/m^3,
2nd highest = 200 μg/m^3.
060 Hawaii, 1st highest = 650 μg/m^3, 2nd highest = 120 μg/m^3.
161 Kingston (N.Y.), 1st highest = 164 μg/m^3,
2nd highest = 160 μg/m^3.

***Federal Register, Vol. 36, #158, p 15488, August 14, 1971

For CO, 29 AQCRs were originally classified as Priority I (Table 4). Sufficient 1971 data are available from 13 of the 29 AQCRs. These 13 AQCRs showed concentrations in excess of the NAAQS. Of the remaining 218 Priority III AQCRs, 20 AQCRs were found to exceed the NAAQS.

The NO_x measurement technique is currently being reevaluated by EPA. Based on information obtained by a method which is currently being considered as a replacement methodology, Los Angeles, Chicago, and the New Jersey-New York-Connecticut AQCRs currently exceed the NAAQS.

Air quality has improved substantially over the past decade with respect to TSP and SO_2. Annual averages of TSP concentrations (Figure 1) have improved by over 20% during the past 12 years while average concentrations of SO_2 (Figure 2) at 32 NASN Stations have improved 50 percent.

Nationwide trends in oxidants, carbon monoxide, and NO_x are not yet identifiable, but, based on analysis of NO_x data from the six CAMP sites and on limited information obtained from the state of California, carbon monoxide and oxidant concentrations appear to be decreasing.

C. Source Emissions

The estimated emissions from major source categories are summarized in Table 8. Estimates are made for sulfur dioxide, particulate matter, carbon monoxide, hydrocarbons and nitrogen oxides. The tons of emissions of these pollutants are related to transportation, fuel combustion in stationary sources, industrial processes, solid

Table 4

CARBON MONOXIDE

STATUS* OF AIR QUALITY

1972

Priority**	Number of AQCRs	AQCRs Reporting at Least One Station Quarter	AQCRs Exceeding the Primary Standard
I	29	13	13
III	218	21	20
TOTAL	247	34	33

*As of August 7, 1973

**Federal Register, Vol. 36, #158, p 15488, August 14, 1971

FIGURE 1 COMPOSITE LEVELS OF TOTAL SUSPENDED PARTICULATE AT URBAN AND NONURBAN NASN STATIONS

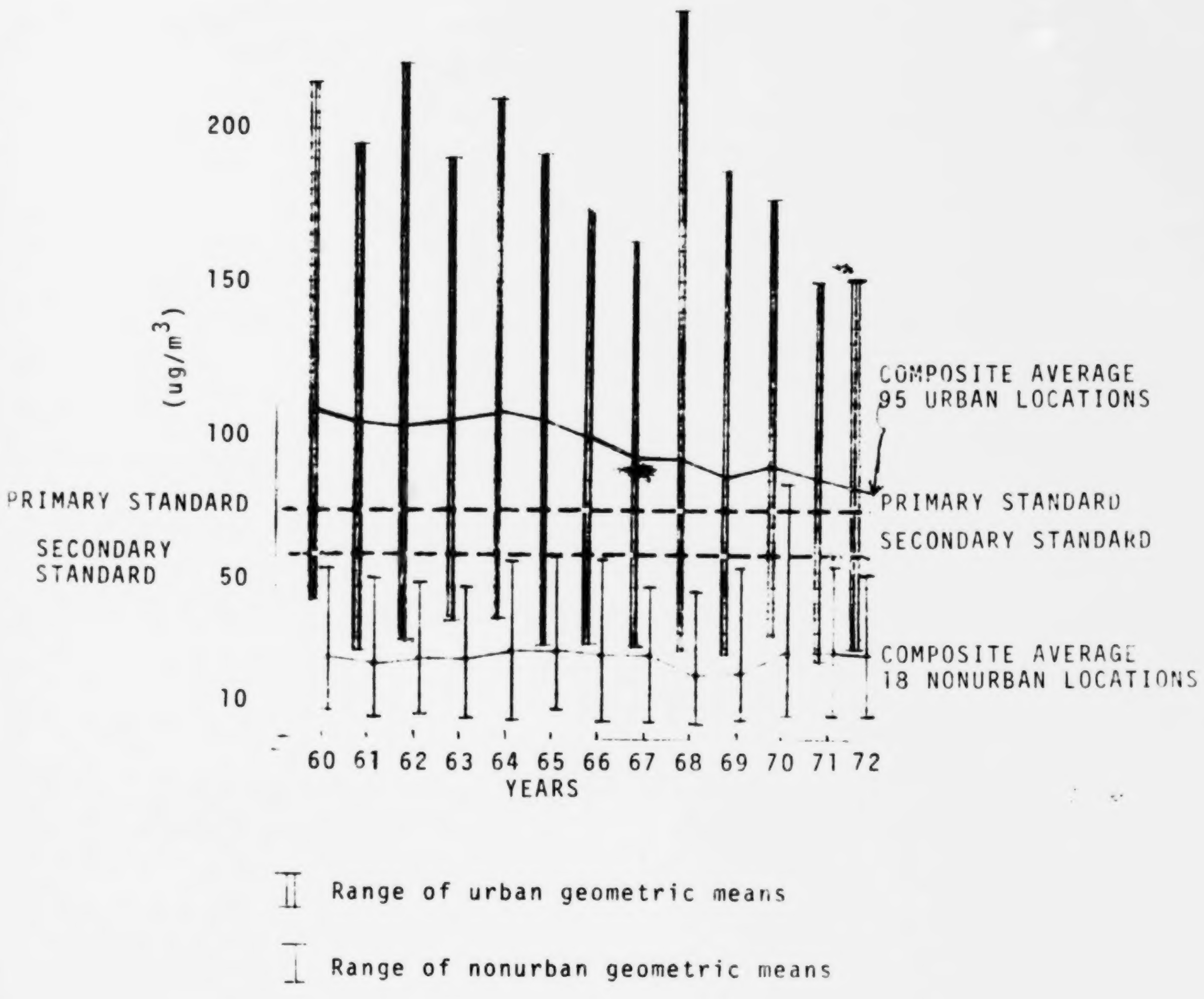
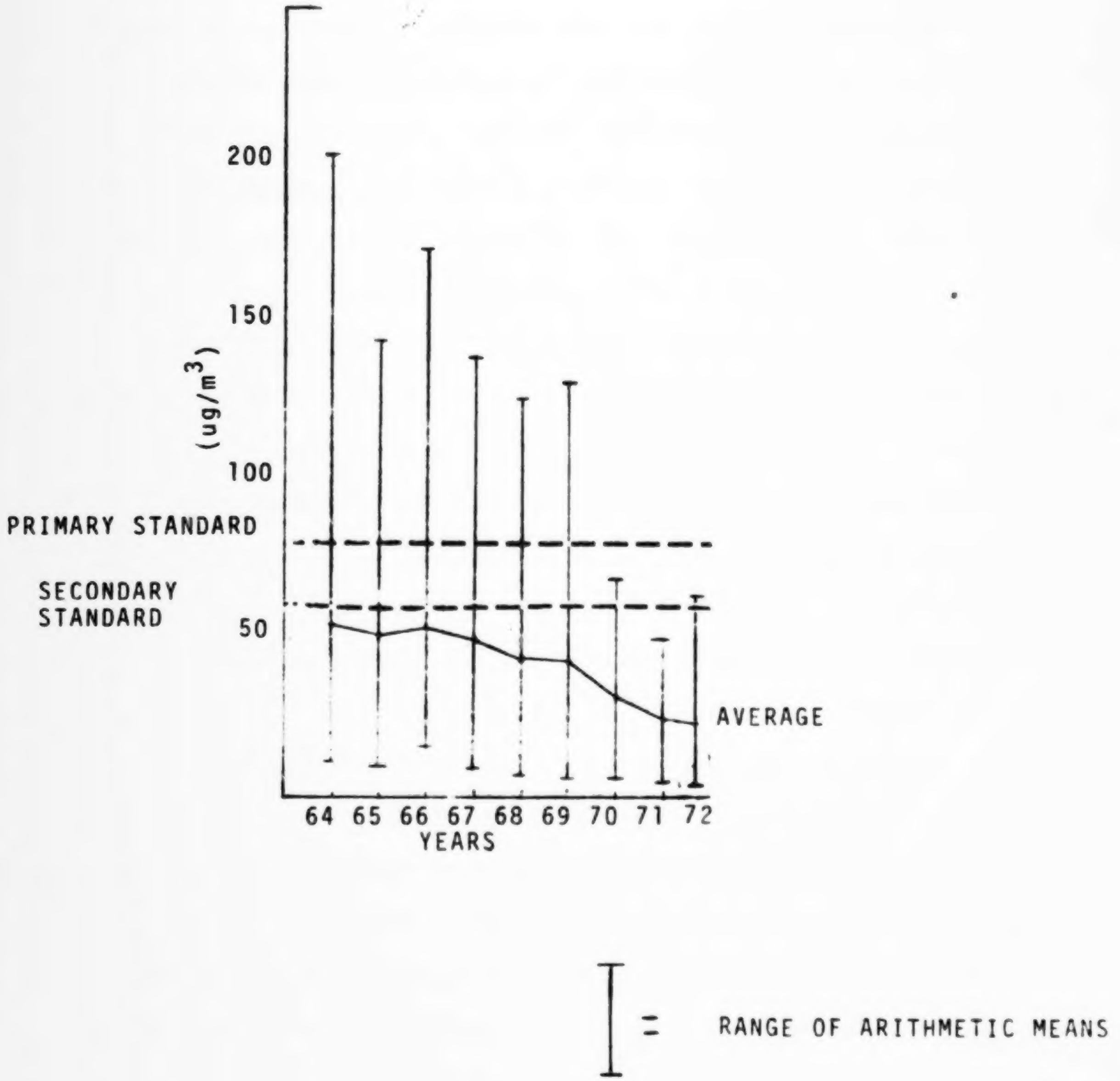


FIGURE 2 COMPOSITE LEVELS OF SULFUR DIOXIDE
AT 32 NASN STATIONS



waste disposal and miscellaneous sources. The SIP emission estimates are compared to the 1970 nationwide estimates.

A detailed analysis of monitoring, air quality, and emission trends is covered in The National Air Monitoring Program: Air Quality and Emissions Trends Annual Report, Volume 1, EPA 450/1-73-001a.

D. EPA Actions on SIPs

Implementation plans have been submitted to EPA by all 50 States, the District of Columbia, Puerto Rico, Guam, American Samoa, and the Virgin Islands. At the present time, 20 plans contain fully approved regulatory portions. Various regulatory portions of the remaining 35 plans have been disapproved. EPA has promulgated regulatory portions of 19 SIPs. For 11 of these, all proposed regulations have been finalized; 8 have action pending on some proposals. As a matter of policy, EPA rescinds its promulgated portion of a state plan when the state takes corrective action to satisfy the plan requirement.

All EPA proposals for the 16 remaining SIPs with regulatory deficiencies are awaiting final action. The majority of these proposals resulted from disapprovals made relatively recently, mostly in the areas of transportation controls and compliance schedules. Other proposals for these states are copper smelter regulations.

At the present time, a portion of all plans are technically disapproved because of deficiencies relating to the significant deterioration and indirect source/maintenance of standards issues. These issues and other problems are discussed in Section VI.

Twenty-three states (including the District of Columbia) involving 38 separate AQCRs are required to submit transportation control plans.

A list of these states and a summary of proposed transportation control strategies are provided in Table 17.

E. Plan Revision Management System

A plan revision management system (PRMS) has been developed to identify potential problem air quality control regions (AQCRs) that may need SIP revisions. The system is designed to combine and utilize information contained within the SAROAD (air quality), NEDS (source emissions) and CDS (enforcement and compliance) systems. Data from these systems are used to project the air quality levels which can be expected from enforcement of the regulations submitted as part of the SIP. PRMS will analyze air quality data and compare measured values to projected air quality to determine if adequate progress is being made to reach standards by statutory dates. Potential problem AQCRs will be flagged, and the EPA Regional Offices will be advised to review the data and determine if a real problem exists.

To date, the PRMS has been used to analyze the progress being made relative to the annual particulate matter and sulfur oxide standards. OAQPS is in the process of reviewing and analyzing the short-term data and will provide the PRMS results to the Regional Offices when completed.

It should be noted that the quantity and distribution of air quality monitoring sites available for analysis by the PRMS varied for each AQCR. In a few cases, the limited number of sites and quantity of data made the analysis for the Region difficult.

Based on the limited data currently available, the PRMS analysis indicates that acceptable progress has been made in improving the SO_x

air quality and no "potential problem" was identified for any of the AQCRs analyzed. The TSP analysis indicates that approximately 30% of the AQCRs were making adequate progress and 70% may have a localized problem in some portion of the Region. One of the AQCRs analyzed was identified as a "potential problem region." The appropriate Regional Offices have been notified and asked to investigate each "potential problem" that has been identified by the PRMS. The results of these investigations and analysis of additional priority AQCRs will be discussed in the next Administrator's Progress Report (March 1974).

Results of 17 AQCRs now being tracked are included in the "Plan Revision Management System" Section of this report. Other priority AQCRs currently are being added to the tracking system, and results will be included in the next SIP progress report (March 1974).

F. Low-Sulfur Fuel Supply

The low-sulfur fuel supply problem results primarily from the fact that some states (1) adopted statewide emission regulations designed for the worst area of the State which were therefore more restrictive than needed to attain the air quality standards in most areas or (2) determined 1975 as a "reasonable" time by which to meet secondary standards. Viewed as a whole, the State Implementation Plans imposed heavy demands on the nation's supply of low-sulfur fuel and sulfur dioxide cleanup systems. The problem is most severe for coal-burning facilities in EPA Regions III, IV, and V where most of the nation's coal combustion occurs. EPA has implemented a

Clean Fuel Policy assisting the States in modifying or deferring SO_2 control regulations not needed for attainment of the primary (health related) air quality standard. The program has been successful and plan revisions underway will lower the fuel gap by about 80 million tons of coal by 1975.

G. Enforcement Activities

EPA air enforcement activities were initiated with the approval of most portions of state plans on May 31, 1972. Since then, enforcement activities have concentrated on (1) the establishment of reasonable compliance schedules for all major sources (2) the development of a source surveillance program to determine the status of compliance and (3) keeping major sources in compliance or on compliance schedules.

Enforcement actions have been initiated against 50 facilities. In some cases these actions established a reasonable compliance schedule and in other cases the actions were designed to achieve compliance with previously established reasonable schedules. These actions, including pending notices of violations, abatement orders, and civil/criminal proceedings are summarized in Table 28. Current investigations under authority of §114 of the Act are not included. Most of these actions were against flagrant violators and were initiated either because of state failure or inability to act or by citizen complaint. The air enforcement strategies that have been developed are expected to provide a more orderly and rational approach for the taking of future EPA air enforcement actions. The strategy is directed toward some 10,000 facilities that presently are out of compliance and not on a reasonable schedule.

Only 6 of the 20 states required to do so, submitted increments of progress to complete the compliance schedule requirements of Section 40 CFR Part 51.15. Approval/disapproval action on these schedules was completed as required on June 15, 1973. and only one of the six submitted was satisfactory.

EPA has proposed schedules by source category in those states that failed to submit acceptable schedules. Hearings on these schedules were held the week of July 15, 1973, by the Regional Offices. EPA promulgated compliance schedules for the affected source categories (covering some 10,000 facilities) by the end of August 1973. This completes development of Section 51.15 schedules.

DSSE, OEGC has completed development of the Compliance Data System (CDS). This system has now been implemented in Regions II, III, IV, V, IX and X. It is expected that CDS will have an adequate data base in all regions by the next semi-annual progress report in order to assist in providing a meaningful summary of State and EPA progress toward enforcing the requirements of the SIPs.

H. Litigation

Currently 119 lawsuits have been brought under the Clean Air Act, as amended. The type of organization filing the suit and the reason for the suit is presented in Table 5. Sixty (60) suits were brought by industries, with the electrical generating companies and the smelter industry bringing 23 and 17 suits, respectively. The approval/disapproval of SIPs was by far the most challenged EPA action, resulting in 63 suits. Environmental/citizens groups filed

TABLE 5
SUMMARY
Air Litigation July 1973

	Subject of Suit									
Suit Filed By	Air Quality Standards	Auto Emissions	New Source Performance Standards	Enforcement of SIPs	Significant deterioration	SIP-approval/ disapproval	Promulgation of Regulations	Fuel Additives	Other	TOTAL
EPA		3							1	4
States				2		1	1			4
Cities/Counties				1		1	1			3
Environmental/ Citizens Groups	2	1	1	1	2	31	8	1	1	48
Industries										
Petroleum				2			2	3		7
Automotive		4								4
Electrical Gen.			1			15	6		1	23
Smelters	2			1		12	2			17
Other			3			3	3			9
TOTAL	4	8	5	7	2	63	23	4	3	119

Source: EPA Office of Enforcement and General Counsel, Washington, D.C.

48 suits, most of which related to approval/disapproval actions taken by EPA on state plans.

Decisions on some of these cases have been reached, and cases have been referred to higher courts. Others are still pending. Additional information on specific court cases can be obtained by contacting the EPA Office of Enforcement and General Counsel, (OEGC) in Washington, D.C., or the EPA Regional Counsels in each of the 10 EPA Regional Offices. In addition, a summary of Clean Air Act litigation has been published in the Environmental Law Reporter, March 1973 issue.

I. State and Local Agency Resources

State and local air pollution control agencies currently have 6,844 budgeted positions; 6,195 of these are filled. These filled positions represent approximately 1,100 man-years less than the estimated SIP requirements for 1973 and 2,800 man-years less than the estimated SIP manpower needs in 1975. The resources are distributed about equally between the 55 state and approximately 174 local agencies.

In FY 73 approximately $113.6 million was spent by State and local control agencies in their air pollution control efforts. The EPA grant support program funds accounted for almost 41 percent of this expenditure. Additional Federal support, including 202 Federal assignees, special contract support, and demonstration grants resulted in a total Federal cost of $50.5 million or 45% of the total FY 73 expenditure. Although the total funds being spent in FY 73 is only 4% (4.5 million) less than the estimated SIP needs, additional resources will be needed by states to implement control programs resulting from court decisions involving transportation controls, significant deterioration and maintenance of standards requirements. An additional $5-10 million above original SIP requirements may be needed. A comprehensive study of needed resources is being made to define these needs.

J. Current Activities

State Implementation Plans are not static; new issues are continuously arising and revisions will be necessary both to accommodate these issues and to respond to new information on plan effectiveness. Some of the current issues and major plan revisions include:

1. Significant deterioration: Four alternative regulations were proposed by EPA in July 1973 and public comment is now being solicited. Public hearings have recently been held in Washington, D.C., Atlanta, Dallas, Denver, and San Francisco.

2. Maintenance of Standards/Land Use Controls (Indirect Sources): EPA is following a court order schedule as a result of the Natural Resource Defense Council v Ruckelshaus. Final promulgation of EPA regulations for disapproved SIPs is anticipated in December 1973.

3. Supplementary Control Systems (SCS): EPA proposed regulations in September 1973 for the use of SCS and requested public comment. SCS is a temporary measure applicable only to isolated smelters and coal-fired power plants, where the sole alternatives are permanent curtailment of production, shut-down, or delays in attainment of the standards.

4. Promulgation of final regulations for copper smelters: The major issue involves the use of SCS as a control strategy. SCS will allow EPA to complete the development of control strategies to achieve secondary standards for which 18 month extensions have been granted.

5. Regional reclassification for nitrogen dioxide: It is expected that 42 of the 47 AQCRs originally classified as Priority I will be reclassified as Priority III. The original reference method overestimated nitrogen dioxide concentrations.

6. Fugitive Dust: Fugitive dust i.e., particulate matter due to emissions from unpaved roads, agricultural lands, construction sites, and other similar sources, caused several western states to fail to demonstrate attainment of standards for particulate matter. Additional data have been collected and results indicate that possibly disruptive controls may be required in the affected areas to attain particulate matter standards.

7. Tall Stacks: EPA has published a proposal on tall stacks policy simultaneously with the SCS proposal. This policy allows consideration of tall stacks as an acceptable control strategy only as a part of SCS.

8. Definition of "reasonable time" to attain secondary standards: As a part of the SCS proposals "reasonable time" has been defined as the time required to design, fabricate and install reasonably available control technology. States can postpone the application of control technology only in cases where the control strategy would have a severe adverse economic or social impact.

9. Implementation of Clean Fuel Policy: The availability of low sulfur coal is most severe in coal-burning utilities in EPA Regions III, IV, and V where most of the nation's coal combustion occurs. EPA has proposed that coal burning sources will still be required to comply with state sulfur regulations but cannot convert to oil unless such conversion is needed to meet primary air quality standards.

In addition to these major issues directly involving plan development, the Regional Offices have defined several general state problems related to SIPs. The more frequently mentioned of these include the following:

1. State resources generally will not be adequate without increases in Federal grant support.

2. State legal service generally is inadequate to follow up enforcement actions against air pollution sources.

3. State legal authority generally is inadequate to carry out newer portions of implementation plans, e.g. indirect sources and significant deterioration.

4. Coordination between states and among State and local governments often is poor, e.g., in the development of transportation control plans.

5. Public interest and support of state air pollution control programs appears to be decreasing in some areas.

Part Three State Implementation Plan Progress

A. Air Quality Monitoring

An important measure of progress in SIP implementation is the relationship between the number of existing air quality monitoring stations and the number required under the implementation planning process. Table 6 summarizes the number of existing monitoring stations for 1971, as well as the number proposed for 1974 and the minimum requirement, stratified by pollutant and monitoring method. In some instances, the number of existing monitoring stations in a given pollutant method category exceeds minimum requirement.

The relationship between the total number of monitoring stations for a given pollutant and the number of those stations whose measurements exceeded established standards for 1969 through 1971 is shown in Table 7. This table reflects only those stations from the National Aerometric Data Bank for which sufficient data were available to permit valid assessments of ambient air quality. It does not include all operating stations and therefore does **not** represent the total number of stations for which measurements may have exceeded air quality standards.

More specific details on air monitoring activities are contained in The National Air Monitoring Program: Air Quality and Emissions Trends Annual Report, Volume 1, EPA 450/1-73-001a, Volume II, EPA 450/1-73-001b.

Table 6

NATIONWIDE SUMMARY OF STATE MONITORING INVENTORIES AS REPORTED IN SIP'S

	NUMBER OF MONITORS			
Pollutant/Method	1971 Existing	1974 Proposed	Minimum Requirement	Percent Increase
TSP/Tape	397	901	497	127
TSP/Hi-Vol	2538	3511	1366	38
SO_2/Continuous	329	698	213	112
SO_2/West-Gaeke Bubbler	541	1431	666	164
Ox/Continuous	183	458	208	150
CO/NDIR Continuous	197	457	133	132

Table 7

NUMBER OF FEDERAL, STATE, AND LOCAL AIR POLLUTION MONITORING STATIONS: 1969, 1970, 1971

Pollutant	Number of Stations		
	1969	1970	1971
SUSPENDED PARTICULATES			
Total stations with valid year's data	667	644	640
Exceeding Annual Secondary Standard	638	459	426
Exceeding Annual Primary Standard	335	319	275
Total stations with 1 or more valid quarters	1095	1002	1313
Exceeding 24-Hr. Secondary Standard	594	530	628
Exceeding 24-Hr. Primary Standard	184	161	140
SULFUR DIOXIDE			
Total Stations with valid year's data	178	155	153
Exceeding Annual Primary Standard	24	19	4
Total stations with 1 or more valid quarters	234	276	409
Exceeding 24 Hr. Primary Standard	25	17	11
CARBON MONOXIDE			
Total stations with 1 or more valid quarters	35	48	58
Exceeding 1-Hr. Standard	3	10	7
Exceeding 8-Hr. Standard	29	39	53
HYDROCARBONS*			
Total stations with 1 or more valid quarters	23	9	34
Exceeding 6-9 A.M. Standard	*	*	*
TOTAL OXIDANTS OR OZONE			
Total stations with 1 or more valid quarters	38	45	50
Exceeding 1-Hr. Standard	37	43	50

*Data on record are for total hydrocarbons.

B. Source Emissions

Emissions data, because of the shorter history of their collection, are less abundant than air quality data. Further, unlike air quality data which are the results of direct measurements, emissions data are largely inferential (i.e., derived from emission factors or other indirect means).

Table 8 presents a summary of nationwide emission estimates. The top half shows the nationwide emission totals resulting from the summation of individual AQCR totals as found in the State Implementation Plans. AQCR totals were obtained by means of a comprehensive emission inventorying technique. This technique involves estimating a majority of the emissions on a point by point basis, where such parameters as fuel rates, process rates, and control equipment efficiencies are known. In the case of automotive pollutants, for example, motor vehicle emission factors, vehicular miles of travel, average vehicle speeds, and population and age distribution of vehicles are all considered in determining the total emissions for that source category.

There are some shortcomings in the data. First, the SIP emission data do not contain a complete set of data for all pollutants. Consequently, nationwide totals derived from these data will not be complete. Second, the emissions for all Regions are not necessarily for the same year. Most of the existing data are referenced to calendar year 1970. Third, it is not known if all States used the same

Table 8

COMPARISON OF SIP EMISSIONS AND 1970 NATIONWIDE ESTIMATES

SIP EMISSIONS, 10^6 TONS/YR

Source Category	SO_x	PM	CO	HC	NO_x
Transportation	0.8	1.1	100.9	18.0	11.6
Fuel Combustion in Stationary Sources	28.9	9.9	1.5	1.0	9.2
Industrial Processes	7.8	10.3	10.3	4.3	0.5
Solid Waste Disposal	0.1	1.1	3.4	1.2	0.3
Miscellaneous	0.2	1.1	2.3	1.5	0.2
TOTAL	37.8	23.5	118.4	26.0	21.9

1970 NATIONWIDE ESTIMATES, 10^6 TONS/Yr

Source Category	SO_x	PM	CO	HC	NO_x
Transportation	1.0	0.8	111.0	19.5	11.7
Fuel Combustion in Stationary Sources	26.4	6.7	0.8	0.6	10.0
Industrial Processes	6.4	13.3	11.4	5.5	0.2
Solid Waste Disposal	0.1	1.4	7.2	2.0	0.4
Miscellaneous	0.2	4.0	18.3	7.3	0.5
TOTAL	34.1	26.2	149.0	34.9	22.8

emission factors or estimating techniques in deriving their emission totals.

The bottom half of Table 8 presents 1970 nationwide emissions. These numbers were derived using nationwide totals of fuel consumption, process weights, and overall average industry control efficiencies. For motor vehicles, nationwide averages of vehicle population and age distribution, average route speeds, and emission factors were used to derive nationwide totals. Comparisons made between the results of these two techniques should be viewed with these differences of procedure in mind.

More specific details on emission estimating activities are contained in The National Air Monitoring Program: Air Quality and Emissions Trends Annual Report, Volume I, EPA 450/1-73-001a, August 1973.

C. EPA Actions on State Implementation Plans

1. Background

States were required to submit to EPA by January 31, 1972, their plans for attainment of National Ambient Air Quality Standards for six criteria pollutants (sulfur dioxide, particulate matter, carbon monoxide, photochemical oxidants, hydrocarbons, and nitrogen dioxide).

A priority classification system was established to categorize AQCRs according to the severity of the air pollution problem in each Region for purposes of SIP development and evaluation. The SIP requirements vary according to the priority classification in order that the time and resources to be expended in both plan development and carrying out the plan are commensurate with the air pollution problem.

The classifications have been based on measured ambient air concentrations where known, or where not known, on estimated air quality in the area of maximum pollutant concentration.

AQCRs are classified as follows: Federal Register, Part II, August 14, 1971, p. 15488.

Priority I - ambient concentrations significantly above primary standards.

Priority I a - ambient concentrations significantly above primary standards due to emissions from a single point source.

Priority II - ambient concentrations significantly above secondary standards.

Priority III - ambient concentrations below secondary standards.

Table 9 is a summary of the AQCR priority classifications for the various pollutants. It should be noted that 43 AQCRs initially classified Priority I or Ia for NO_2 were proposed to be reclassified Priority III on June 8, 1973. The proposed reclassification is a result of new air quality data which show lower levels of NO_2 than those previously measured using the now-invalidated analytical reference method.

Table 9

Summary

Air Quality Control Regions

Priority Classification

Pollutant	Total	Priority I	Priority Ia	Priority II	Priority III
Particulate matter	247	199	11	70	57
Sulfur Dioxide	247	39	21	41	146
Carbon Monoxide	247	29	--	--	218
Nitrogen Dioxide*	247	4	--	--	243*
Oxidant/hydrocarbon	247	54	--	--	193

*Assuming reclassification is promulgated as proposed

A map showing air quality control regions is included in Appendix A. A priority classification of AQCRs by pollutant is contained in The National Air Monitoring Program: Air Quality and Emissions Trends Annual Report, Volume I, EPA 450/1-73-001a, August 1973, pp. 3-11 to 3-16.

2. Plan Approval

Plans were submitted by all 55 states (50 states plus D.C., Guam, American Samoa, Puerto Rico, and the Virgin Islands), and EPA approved or disapproved all portions of these plans. Table 10 indicates the status of regulations proposed by EPA to date. The summary does not reflect plan disapprovals with respect to "significant deterioration" or maintenance of the national standards. It does reflect future EPA proposals anticipated for fugitive dust problems.

The summary also includes approval/disapproval promulgation actions prepared and submitted to the Administrator but not yet published in the Federal Register. It should be noted that the number of plans fully approved and with no regulatory disapprovals has dropped from 31 to 20 since the last SIP Status Report. The new disapprovals are the result of recent actions on transportation control plans and compliance schedules.

Table 10

Status of State Implementation Plans

SIP's approved		15
SIP's with only non-regulatory disapprovals; no EPA promulgation required		5
SIP's with EPA promulgation		19
All proposals finalized	11	
Partial promulgation: action pending on some proposals	8	
EPA proposals awaiting final action		16
TOTAL PLANS		55

On May 31, 1972, the EPA published in the Federal Register the approval and/or disapproval of the implementation plans. Of the 55 implementation plans, 14 plans were approved at that time. Currently, there are 20 SIPs (Table 11) with all regulatory portions approved where no Federal promulgation is necessary (see footnote "a" in Table 11).

Table 11

STATE IMPLEMENTATION PLANS

Plans with All Regulatory Portions Approved[a]

Alabama
American Samoa
Arkansas[c]
Connecticut
Delaware
Florida
Geogria
Guam
Hawaii
Kentucky[b]
Maine
Mississippi
New Hampshire
North Carolina
North Dakota
Oklahoma
Puerto Rico
South Carolina[b,c]
South Dakota[b]
Tennessee

a. Exclusive of requirements for maintenance of standards and significant deterioration

b. EPA has delegated authority to release emission data

c. Except certain non-regulatory portions.

It is anticipated that additional action may be necessary in some of these states at a later date, depending on how these states respond to requirements involving 18-month extensions, maintenance of the national standards, and significant deterioration of air quality. The current status and impact of these major issues on SIPs are discussed individually in this report.

3. Disapproved Portion of Plans

The Clean Air Act requires that EPA promulgate regulations to cover deficient regulatory sections but disapproved non-regulatory portions cannot be corrected by regulatory measures. Table 12 shows the states deficient in legal authority to carry out all elements of an implementation plan. Table 13 indicates the states with non-regulatory provisions still unapproved. The status of EPA promulgations to correct regulatory deficiencies is shown in Table 14.

4. Promulgations

In some cases, EPA has proposed or already promulgated regulations for deficient plans. EPA, as a matter of policy, will rescind its regulations when states enact adequate legislation and/or regulations to satisfy SIP requirements. The present status of EPA promulgations is shown in Table 14.

5. Extensions

(a) Extensions for Attaining Primary Standards

The Clean Air Act provides for extensions of up to two years beyond the three year period prescribed for attainment of national primary ambient air quality standards in those AQCRs

Table 12

Status of States Deficient in Legal Authority

EPA REGION AND STATE	Emergency Abatement of Emissions	Prevent Construction if Standard Exceeded	Make Emission Information Available to Public	Require source recordkeeping	Make Inspections	Conduct Tests	Require Owners to Monitor & Report Emissions	No local Agency for Delegated SIP Responsibility	Implement Transportation Control Plans
Region I									
Massachusetts			X						
Rhode Island			X	X			X		
Vermont			X						
Region III									
District of Columbia									X
Maryland									X
Virginia									X
Region IV									
Kentucky			X*						
South Carolina			X*	X*	X	X	X*		
Tennessee	X								
Region V									
Indiana									X
Wisconsin			X						

*Legal authority delegated to State by EPA

Table 12 (Continued)

Status of States Deficient in Legal Authority

EPA REGION AND STATE	Emergency Abatement of Emissions	Prevent Construction if Standard Exceeded	Make Emission Information Available to Public	Require source recordkeeping	Make Inspections	Conduct Tests	Require Owners to Monitor & Report Emissions	No local Agency for Delegated SIP Responsibility	Implement Transportation Control Plans
Region VII									
Iowa			X						
Kansas			X						X
Missouri			X						X
Nebraska			X						X
Region VIII									
Colorado								X*	
South Dakota			X*						
Utah			X						
Wyoming		X	X	X	X	X	X		
Region IX									
California	X		X						
Region X									
Alaska								X	
Idaho			X*						

*Legal authority delegated to State by EPA

Table 13
Status of States Deficient in Non-Regulatory Provisions

EPA Region & State	Air Quality Surveillance	Periodic Testing & Inspection	Emergency Episode Plan	Resources	Inter-governmental Cooperation
Region II					
New Jersey					X
Region III					
District of Columbia				X	X
Virginia				X	X
Maryland		X		X	X
Pennsylvania	X	X		X	X
Region IV					
Tennessee			X		
Region V					
Illinois			X		
Indiana	X				
Region VI					
Arkansas				X	
Louisiana				X	
Region VII					
Kansas			X		
Missouri			X		
Region VIII					
Utah				X	
Wyoming	X*				
Region IX					
Arizona				X	
California		X	X	X	
Nevada			X		
Region X					
Alaska					X
Oregon				X	
Washington	X			X	

*Approval expected

Table 14

Status of EPA Promulgations to Correct SIP Deficiencies

EPA Region/State/AQCR	Public Availability of Data	Source Recordkeeping and Reporting	Review of New Sources and Modifications	Compliance Schedules	Emission Limitations				Transportation Controls
					NO_x	PM	HC	SO_2	
Region I									
Massachusetts*	X	X							
Metropolitan Boston									0
Hartford-New Haven-Springfield Interstate									0
Rhode Island**		X							
Vermont	X	X							
Region II									
New Jersey				0					
New Jersey-N.Y.- Conn. Interstate							0		0
Metropolitan Philadelphia Interstate							0		0
New York				0					
Hudson Valley Intrastate			0	0				0	
Genesee-Finger Lakes Intrastate			0^1	0^1				0^1	
Southern Tier West Intrastate			0^1	0^1				0^1	
New York-New Jersey-Connecticut Interstate			0	0	0				
Central New York Intrastate			0^1	0^1				0^1	
Virgin Islands			X						

Table 14 (Continued)

Status of EPA Promulgations to Correct SIP Deficiencies

EPA Region/State/AQCR	Public Availability of Data	Source Recordkeeping and Reporting	Review of New Sources and Modifications	Compliance Schedules	Emission Limitations				Transportation Controls
					NO_x	PM	HC	SO_2	
Region III									
District of Columbia				0					0
Maryland				0					
Metropolitan Baltimore Intrastate									0
National Capital Interstate									0
Pennsylvania									0
Southwest Penn. Intrastate									0
Metropolitan Philadelphia Interstate									0
Virginia									
National Capital Interstate									0
West Virginia				0					
Region V									
Illinois									
Metropolitan Chicago Interstate				0		0			0
Indiana									
Metropolitan Indianapolis Interstate			X	0		0	0		
Michigan			X	0					
Metropolitan Detroit-Port Huron Intrastate				X					
South Central Michigan Intrastate				X					
Metropolitan Toledo Intrastate				X					
Minnesota	X								
Ramsey and Hennepin Counties, Minneapolis & St. Paul									0
Ohio									
Cincinnati & Hamilton County									0
Wisconsin	X								0

Table 14 (Continued)

Status of EPA Promulgations to Correct SIP Deficiencies

EPA Region/State/AQCR	Public Availability of Data	Source Recordkeeping and Reporting	Review of New Sources and Modifications	Compliance Schedules	Emission Limitations				Transportation Controls
					NO_x	PM	HC	SO_2	
Region VI									
Louisiana			X						
New Mexico				X					
Four Corners Interstate				X				X	
Texas									
Southern Louisiana-Southeast Texas Interstate							0		
El Paso-Las Cruces-Alamogordo Interstate							0		0
Austin-Waco Intrastate							0		
Metropolitan Houston-Galveston Intrastate							0		0
Metropolitan Dallas-Fort Worth Intrastate							0		0
Metropolitan San Antonio Intrastate							0		0
Region VII									
Iowa	X	X		X					
Kansas	X		X	X					
Missouri	X								
Metropolitan St. Louis Interstate									
Nebraska	X	X	X	X					
Jefferson, Gage, and Thayer Counties				X		X			
City of Omaha									

Table 14 (Continued)

Status of EPA Promulgations to Correct SIP Deficiencies

EPA Region/State/AQCR	Public Availability of Data	Source Recordkeeping and Reporting	Review of New Sources and Modifications	Compliance Schedules	Emission Limitations				Transportation Controls
					NO_x	PM	HC	SO_2	
Region VIII									
Colorado									0
Montana									
Helena Intrastate				0				0	
Utah	X								
Four Corners Interstate				X		X		X	
Wasatch Front Intrastate			X	X	0	X		0	0
Wyoming	X	X	X						
Region IX									
Arizona		X							
Pima County APCD			X						
Phoenix-Tucson Intrastate				X		X		0	0
Arizona-New Mexico Southern Border Interstate				0				0	
Four Corners Interstate				X				X	
California	X	X	X	X					
Metropolitan Los Angeles Interstate				X	0	0	0		
Sacramento Valley Intrastate							0		0
San Diego Intrastate							0		0
San Francisco Intrastate				X			0		0
San Joaquin Valley Intrastate				X		0	0		0
Southeast Desert Intrastate				X		0	0		0
Nevada	X	X	X	0					

Table 14 (Continued)

Status of EPA Promulgations to Correct SIP Deficiencies

EPA Region/State/AQCR	Public Availability of Data	Source Recordkeeping and Reporting	Review of New Sources and Modifications	Compliance Schedules	Emission Limitations				Transportation Controls
					NO_x	PM	HC	SO_2	
Region X									
Alaska									
Northern Alaska Intrastate									0
Idaho									
Eastern Washington-Northern Idaho Interstate				0				0	
Oregon				0					0
Washington									
Puget Sound Intrastate									0
Eastern Washington-Northern Idaho									0

Legend:

X - Promulgated
0 - Proposed, action still pending
1 - Withdrawal of EPA disapproval expected
* - Under court order, EPA has also promulgated regulation limiting variances
** - Under court order, EPA has also promulgated regulations in areas of plan revisions, enforcement orders, & variances.

where needed technology or other alternatives either are not available or will not be available soon enough to attain the primary standards.

At present, there are seven states involving nine AQCRs with extensions for attainment of primary standards as shown in Table 15. In six of these AQCRs EPA promulgation is required and an extension was provided as part of the control strategy. It is likely that additional extensions will be provided as a part of the transportation control strategies which will be promulgated by October 15, 1973.

(b) Extensions for Submitting Plans for Attaining Secondary Standards

On May 31, 1972, EPA granted 18-month extensions to 19 states involving 31 AQCRs to prepare control strategies for achieving secondary standards for particulate matter and sulfur dioxide. These extensions are summarized in Table 16. As a result of the Administrator's announcement on May 12, 1972, that the sulfur dioxide secondary standards might be revised, states have been concentrating their efforts most extensively on the development of particulate strategies and have delayed the sulfur dioxide strategies until the standards issue was resolved. States now have until January 14, 1974 to submit sulfur dioxide strategies. EPA is developing sulfur dioxide control strategies for those states where extensions were provided as a result of disapprovals for not adequately controlling copper smelter emission. EPA will promulgate these strategies by January 30, 1974, for secondary standards if they are still needed after the impact of supplementary control system (SCS) is considered. EPA has already proposed control strategies for the attainment of primary standards.

Table 15

Status of Extensions for Attaining Primary Standards

EPA Region/State/AQCR	Extensions for Attainment of Primary Standards				EPA Promulgation Required
	SO_2	PM	Ox	CO	
EPA Region II					
New York					
Niagara Frontier Interstate (162)	7-77	7-77			No
New Jersey-New York-Conn. Interstate(43)		7-77	12-76	12-76	No
EPA Region V					
Kentucky					
Louisville Interstate (78)	7-77				No
EPA Region VI					
New Mexico					
Four Corners Interstate (14)	3-76				Yes
EPA Region VIII					
Montana					
Helena Intrastate (142)	7-77				Yes
Utah					
Wasatch Front Intrastate(220)	7-77				Yes
Four Corners Interstate(14)	3-76				Yes

Table 15 (Continued)

EPA Region/State/AQCR	Extensions for Attainment of Primary Standards				EPA Promulgation Required
	SO_2	PM	Ox	CO	
EPA Region IX					
Arizona					
Arizona - New Mexico Southern Border Interstate (12)	7-77				Yes
Four Corners Interstate(14)	3-76				Yes
Phoenix-Tuscon Interstate(15)	7-77				Yes
EPA Region X					
Idaho					
Eastern Washington-Northern Idaho Interstate (62)	7-77				Yes

Table 16

Status of SIP Extensions for Submitting Plans for Attaining Secondary Standard

EPA Region/State/AQCR	Extensions for Attainment of Primary Standards				18-Month Extension	
	SO_2	PM	O_x	CO	SO_2	PM
EPA Region I						
Connecticut						
New Jersey-New York-Conn. Interstate (43)						X
Hartford-Springfield Interstate(42)						X
Massachusetts						
Metro. Boston Intrastate (119)					X	X
EPA Region II						
New Jersey						
Metro. Philadelphia Interstate(45)					X	X
New Jersey-New York-Conn. Interstate (43)					X	X
New York						
Niagara Frontier Intrastate (162)					X	X
Central New York Intrastate (158)						X
New Jersey-New York-Conn. Interstate (43)					X	X
EPA Region III						
Maryland						
Metro. Baltimore Intrastate (115)					X	
Pennsylvania						
Southwest Penna. Intrastate (197)					X	X
Metro. Philadelphia Interstate (45)					X	X
Virginia						
State Capital Intrastate (225)						X

Table 16 (Continued)

EPA Region/State/AQCR	Extensions for Attainment of Primary Standards				18-Month Extension	
	SO_2	PM	O_x	CO	SO_2	PM
EPA Region V						
Indiana						
Metro. Indianapolis Intrastate(80)					X	
Metro. Chicago Interstate(67)					X	X
Ohio						
Greater Metro. Cleveland Intrastate (174)						X
Steubenville-Weirton-Wheeling Interstate(181)						X
Northwest Pennsylvania Youngstown Interstate(178)						X
EPA Region VI						
New Mexico						
Arizona-New Mexico Southern Border Interstate (12)					X	
Four Corners Interstate (14)					X	
EPA Region VIII						
Colorado						
Metro. Denver Intrastate (36)						X
San Isabel Intrastate (38)						X
Pawnee Intrastate (37)						X
Montana						
Helena Intrastate (141)					X	
Utah						
Wasatch Front Intrastate (220)					X	
Four Corners Interstate (14)					X	

Table 16 (Continued)

	Extensions for Attainment of Primary Standards				18-Month Extension	
EPA Region/State/AQCR	SO_2	PM	O_x	CO	SO_2	PM
EPA Region IX						
Arizona						
Arizona-New Mexico Southern Border Interstate (12)					X	
Four Corners Interstate (14)						
Phoenix-Tucson Intrastate (15)					X	
California						
Metro. Los Angeles Intrastate (24)						X
Hawaii						
State of Hawaii Intrastate (60)						X
Nevada						
Nevada Intrastate (147)					X	
EPA Region X						
Alaska						
Cook Inlet Intrastate (8)						X
Northern Alaska Intrastate (9)						X
Idaho						
Eastern Washington-Northern Idaho Interstate (62)					X	X
Eastern Idaho Intrastate(61)						X
Idaho Intrastate (63)						X
Metro. Boise Intrastate (64)						X

Thirteen states identified in Table 16 were required to submit particulate matter control strategies for attainment of secondary standards by July 31, 1973. Two states submitted strategies on time, and nine more are expected to submit late plans. Two states are not expected to submit plans. The thirteen state plans are summarized below:

States Plans Submitted	States Expected to Submit Late Plans	States Not Expected to Submit Plans
Hawaii	New Jersey	California
New York	Pennsylvania	Indiana
	Connecticut	
	Massachusetts	
	Alaska	
	Idaho	
	Colorado	
	Ohio	
	Virginia	

6. Transportation Controls

A summary of transportation control plans is shown in Table 17. Twenty-three states including the District of Columbia require transportation control measures in addition to stationary source emissions controls to attain ambient air quality standards for carbon monoxide (CO) and photochemical oxidants. To date eighteen states have submitted transportation control measures for control of carbon monoxide and hydrocarbon (HC) emissions from motor vehicles. Transportation control measures proposed by the States of Alabama, Kansas, Louisiana, Missouri, and New York have been approved. In those situations where review of the State plan does not demonstrate that air quality standards will be attained, EPA has so indicated and published notice to that effect in the

Table 17

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
Massachusetts (I) Metropolitan Boston-Interstate	59	69	E		E	E	E	E		E		E						E	24
Massachusetts (I) Hartford-New Haven Springfield Interstate	57	--	E	E	E	E	E	E		E	E	E						E	0
New York (II) New York City	78	68	S	S	S	S	S	S										S	CO-19 HC-19
New York (II) Rochester		45	S							S									0
New York (II) Syracuse	24.5																		0
New Jersey(II) N.Y., N.J., Conn. Interstate	47	67	S/E	E	E	E	E		E	E	F				E	E			24
New Jersey (II) Metropolitan Philadelphia Interstate	43/70	47	S/E		E	E	E		E	E	E				E				24
District of Columbia(III)	55	60	S		S/E	E	E	S	S	S/E		S		S					24

Table 17 (Continued)

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
Maryland (III) Metropolitan Baltimore	57	70	S/E	E	S/E	E	E	S	S/E	S/E				S/E	E				24
Maryland (III) National Capital Interstate	55	60	S/E	E	S/E	E	E	S	S/E	S/E				S				E	24
Pennsylvania (III) Metropolitan Philadelphia Interstate	70	--	S/E	E			E		S/E	E					E			E	12
Pennsylvania (III) Southwest Pennsylvania	57	54	S/E	E			E		S/E	E					E			E	12
Virginia (III) National Capital	55	60	S	E	S/E	E	E	S	S	S/E		S		S				E	24
Alabama (IV) Metropolitan Birmingham	37	18								S									0
Alabama (IV) Mobile, Pensacola		41								S									0
Indiana (V) Metropolitan Indianapolis	25	38								E									0
Illinois (V) Metropolitan Chicago Interstate	50	--	S/E				S/E												0

Table 17 (Continued)

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
Minnesota (V) Minneapolis-St. Paul	40	--	E	S			S/E		S										0
Ohio (V) Metropolitan Cincinnati-Interstate	--	45	E							E									0
Ohio (V) Metropolitan Dayton	--	30																	0
Ohio (V) Metropolitan Toledo	--	50																	0
Louisiana (VI) S. Louisiana-S.E. Texas	--	40								S/E									0
Texas (VI) Austin-Waco	--	27								E									0
Texas (VI) Corpus Christi	--	62																	0
Texas (VI) Metropolitan Houston-Galveston	--	75	E	E		E	E	E		E					E				24
Texas (VI) Metropolitan Dallas-Ft. Worth	--	36	E	E			E			E									0

Table 17 Continued

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
Texas (VI) Metropolitan San Antonio	--	45	E	E		E	E			E					E				12
Texas (VI) El Paso-Las Cruces-Alamogordo Interstate	--	34	E							E									0
Kansas (VII) Metropolitan Kansas City	29									S									0
Missouri (VII) Metropolitan Kansas City	29									S									0
Kansas (VII) Metropolitan Kansas City Interstate	40	--																	0
Colorado (VIII) Metropolitan Denver	59	60	S	S		S	S		S	E	S		S		E				24
Utah (VIII) Wasatch Front	61	--	S/E	S/E		E	S		S						E				12
Arizona (IX) Phoenix-Tuscon	68	37	S/E	E	S/E 68-74	S/E Pre-68	E			S	S		S	E	E	E			24
California (X) San Francisco Bay Area	31	73	E	E	E	S	E			E				E		E			24

Table 17 (Continued)

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
California (IX) Metropolitan Los Angeles	78	87	E	E	E	S	E		E	E	E				E	E			24
California (IX) San Diego	44	--	E	E	E	S	E			E				E		E			24
California (IX) Sacramento Valley	59	67	E	E	E	S	E			E				E		E			24
California (IX) San Joaquin Valley	40	62	E	E	E	S	E			E				E		E			24
California (IX) Southeastern Desert	25	--				S													24
Alaska (X) Northern Alaska	74	--	E	E	E	E	E										E		24
Oregon (X) Portland Interstate	59	43	S	S			S		S/E									E	0
Washington (X) Eastern Washington-Northern Idaho-Interstate	50	--	E	S			E				S							E	0

Table 17 (Continued)

Summary of Transportation Control Plans

State (EPA Region) AQCR	Reduction Required (%)		Acceptable State Portion or EPA Proposal																Extension Requested (Months)
	CO	OX	Inspection/ Maintenance	Traffic Flow Improvements	Catalytic Retrofit	Other Retrofit	Parking Restrictions	Pricing Policies	Mass Transit Improvements	Additional Stationary Source Controls	VMT Reduction	M/V Excl. Area	Gaseous Fuel	Car Pool Locator	Gasoline Limitations	Motorcycle Restrictions	Idling Limitations	Selective Vehicle Exclusion	
Washington (X) Puget Sound	55	47	E	S			E				S							E	0
TOTALS			31	24	16	21	28	8	13	30	8	4	2	9	11	7	1	10	

Legend: S - State
E - EPA

Federal Register. EPA has also proposed additional transportation control measures for presentation at hearings scheduled to permit public participation in proposed rulemaking. For those states that have not prepared and submitted transportation control measures, the Environmental Protection Agency has published in the Federal Register proposed strategies to reduce CO and/or HC emissions from vehicular sources. Public hearings to consider EPA proposed transportation control measures commenced in July and will continue until late September.

The promulgation of EPA proposed rulemaking in the Federal Register is planned in three groups and will be completed by October 15, 1973. In addition, the latest available air quality data are being examined to identify other AQCRs in which carbon monoxide and/or photochemical oxidant air quality standards are being exceeded. Initial review of this data indicates that air quality standards are being exceeded in twenty additional AQCRs. This air quality data will be subjected to roll-back analysis to determine whether the Federal Motor Vehicle Emissions Control Program plus stationary source controls will be adequate to attain NAAQS or if additional transportation control measures will be necessary.

D. Plan Revision Management System

1. Background

One important issue facing EPA relative to State Implementation Plans (SIPs) is whether the approved SIP control strategies will attain the national ambient air quality standards within the time frame prescribed by the Clean Air Act. In response to this area of concern, OAQPS has developed a Plan Revision Management System (PRMS) to identify those "potential problem regions" that may need plan revisions. The PRMS will identify "potential problems" by comparing the measured air quality curve with the projected air quality curve based on the applicable SIP regulations to determine if adequate progress has been made toward attainment of the standards.

An evaluation by OAQPS of air quality data being received from the States indicates that air quality in most regions is improving. (See: National Air Monitoring Programs: Air Quality and Emissions Trends Annual Report, August 1973 and Progress Reporting System Summary Report, September 1973). However, in some regions air quality levels are not improving sufficiently to attain the national standard by the date specified for attainment of such standard. In fact, air quality in a few areas appears to have deteriorated from SIP design levels.

2. Plan Revision Management System

(a) Operation of the System

The system is designed to combine and utilize information contained within SAROAD (air quality), NEDS (source emissions), and CDS (enforcement and compliance; when it becomes operational). Data from all of these systems are used to project the air quality levels which can be expected from enforcement of the regulations submitted as part of the SIP. From this information, a unique projected air quality curve is then developed from each region under study. Since the PRMS considers both growth and SIP regulations, it is possible for the projected air quality levels to increase prior to the effective date of the applicable SIP regulations. As new ambient air quality data are submitted (as required by 40 CFR 51.7, Reports, August 3, 1973), they will be entered into the system. PRMS will analyze these data by comparing them to the projected air quality values to determine if adequate progress has been made. In each case where measured levels exceed projected levels, (allowing for statistical variation) the region will be flagged as a "potential problem region." Since many factors influence air quality measurements, it is not possible to state conclusively that a flagged AQCR has an inadequate SIP. Therefore, after a region is flagged, a review will follow to assure that the "flag" was not the result of invalid air quality data or unusual meteorological conditions. The PRMS will identify "potential problem" monitoring sites within the region and indicate the need for further review.

The appropriate Regional Office will be notified and a review will be initiated to determine if a plan revision is warranted.

In addition to providing a management tool for identifying regions which have "potential problems," the PRMS can also be used to identify regions or portions of regions whose air quality has significantly deteriorated. No action has been taken in this report relative to air quality deterioration since the issue (significant deterioration) has not yet been resolved.

Seventeen AQCR's were selected for review by the PRMS in this first report. They are as follows:

1. Metropolitan Baltimore Intrastate (115)
2. Metropolitan Birmingham Intrastate (004)
3. Metropolitan Boston Intrastate (119)
4. Metropolitan Chicago Interstate (067)

5. Greater Metropolitan Cleveland Intrastate (174)
6. Metropolitan Denver Intrastate (036)
7. Metropolitan Houston-Galveston Intrastate (216)
8. Metropolitan Indianapolis Intrastate (080)
9. Metropolitan Los Angeles Intrastate (024)
10. National Capital Interstate (047)
11. New Jersey-New York-Connecticut Interstate (043)
12. Niagara Frontier Intrastate (162)
13. Metropolitan Philadelphia Interstate (045)
14. Phoenix-Tucson Intrastate (015)
15. Puget Sound Intrastate (229)
16. Metropolitan St. Louis Interstate (070)
17. Wasatch Front Intrastate (220)

Selections were made using the following criteria:

1. A history of high ambient pollutant concentrations.
2. Expected problems.
3. High population areas (they represent approximately 31% of the total U.S. population).
4. At least one major city in each EPA region.
5. Available historical data on air quality and emissions.
6. Histories of and potentials for emergency episodes.

Two of the 17 AQCR's in the report were not analyzed. It was decided that air quality projections would not be developed at this time for the Phoenix-Tucson AQCR due to the uncertain nature of the smelter and fugitive dust regulations and their impact on the ambient sulfur dioxide and particulate matter concentrations respectively.

A similar decision was made not to develop projected air quality curves for the Los Angeles AQCR at this time because of the complex relationship between particulate matter and photochemical oxidants. Consequently, only the observed air quality is plotted for these regions. A detailed review for these regions will be included as soon as the above issues are resolved.

No analysis was made of short-term data for any pollutant. OAQPS is in the process of reviewing and analyzing these data and will forward the PRMS results as an addendum when they are completed. Similarly, progress in controlling NO_x was not reviewed by the PRMS due to the proposed changes to the reference method for this pollutant. Therefore, this report only analyzes the progress being made relative to the annual P.M. and SO_x standards.

b. Action Procedures

Once a "potential problem region" is identified, OAQPS will notify the appropriate Regional Office which will then be responsible for investigating the special details of the situation and determine the validity and magnitude of any problems. This should be done in cooperation with the respective State and local agencies. Such an investigation should include a determination of the validity of the data in question as well as a review of the effectiveness of the implementation plans control strategy. This investigation could indicate that:

1. A site is "source oriented," i.e., too close to a source. In this case, the Regional Office should develop a projected air quality curve for that specific site based primarily on the compliance schedule of that source.

2. A more detailed analysis will be performed to develop the projected air quality curve because of special features of the region.
3. A more effective implementation of procedures for reviewing new source construction and modification is necessary to restrict growth in certain areas of a region.
4. Additional EPA/State enforcement is needed to implement the control strategy.
5. No further variances should be granted for a particular regulation.
6. A SIP revision is necessary.

The Regional Office will advise OAWP and OEGC of its findings and submit a description of the action it plans to take. Guidelines which identify the responsibilities and procedures to be followed in determining where plan revisions are necessary on the basis of evaluation of air quality data are to be transmitted to the Regional Offices by OAQPS. Additional guidance on specific issues such as the evaluation of air quality data to determine its validity, the evaluation of sampling methodology, and data handling procedures are being developed and will be provided to the Regional Offices later this year.

If a region has been identified as needing a plan revision, the State must be notified by the Regional Office. The State will then need approximately four to six months to review and revise its plan. This time is needed to identify the problem and develop new control strategies, hold public hearings, adopt control regulations, and submit the revised SIP to the Agency. EPA would have two to four months to review the plan to determine its adequacy. After the new plan has been reviewed, approved or promulgated, sources affected by the regulations should in most cases be provided with at least one year to comply. The above actions will require 18 to 22 months to accomplish. If the need for a plan revision were signalled on January 1, 1974, implementation of the control requirements would be accomplished between July and November 1975. If more than one year is needed for source compliance, up to a two year extension could be requested as provided in the Act.

c. Typical Analysis

The PRMS through the previously described procedures presents an analysis of the air quality progress at each individual monitoring site within an AQCR. The results are presented both in tabular and graphical form. A typical summary PRMS analysis is provided in Figures 3, 4, 5, 6, 7, and 8 for the Metropolitan Chicago Interstate AQCR.

The summary provides a map of the region showing the sampling site locations, a statement on air quality progress, and for each site a tabulation on air quality data and a graphical presentation of measured and projected air quality.

In the Chicago AQCR for example, the site review of station #2 indicates that Gary, Indiana, is not making adequate progress toward attainment of the national standard. While simultaneously site #4 in East Chicago is making adequate progress, a similar review of the monitoring sites shows that good progress is being made at all sites in the Metropolitan Chicago area except for stations #1 and #2 in Gary. Thus, the system has identified a possible problem area in Gary that will be further analyzed by Region V. If it is found that the air quality standard is in jeopardy in Gary, a plan revision will be requested.

FIGURE 3

4. METROPOLITAN CHICAGO INTERSTATE AQCR (067) ILLINOIS-INDIANA

The Chicago area has made exceptional progress in the improvement of P.M. air quality; however, the PRMS indicates that the Gary area may have some significant problems in attaining the standards. The region has made outstanding progress in the control of SO_x.

	PM	SO_x
Number of monitoring sites analyzed	54	10

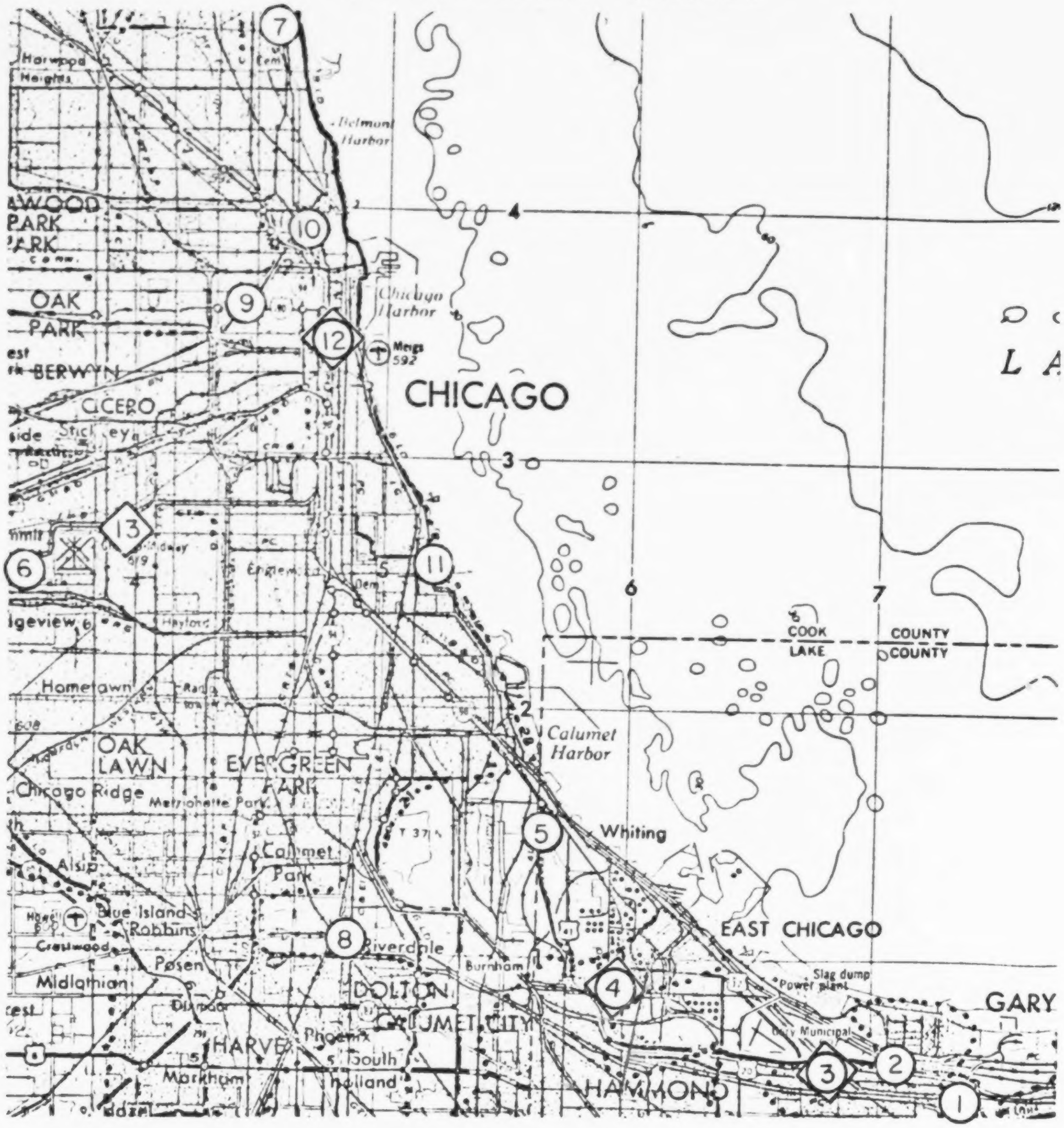
PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	49	(91)	10	(100)
Minor problem	*	1	(2)	0	(0)
Major problem	**	1	(2)	0	(0)
Significant problem	***	3	(6)	0	(0)

[a] percent of monitoring sites analyzed

Figure 4

METROPOLITAN CHICAGO


7
Belmont Harbor
10
9
12
Chicago Harbor
Meigs 592
CHICAGO
OAK PARK
BERWYN
CICERO
Stickney
13
6
11
Englewood
Hayford
Hometown
OAK LAWN
EVERGREEN PARK
Chicago Ridge
Calumet Harbor
5
Whiting
Alsip
Calumet Park
Blue Island
Robbins
8
Riverdale
Posen
Midlothian
DOLTON
Burnham
4
EAST CHICAGO
Slag dump
Power plant
GARY
CALUMET CITY
HARVEY
Phoenix
South Holland
Markham
HAMMOND
Gary Municipal
3
2
1
COOK COUNTY
LAKE COUNTY
LA
2
3
4
5
6
7

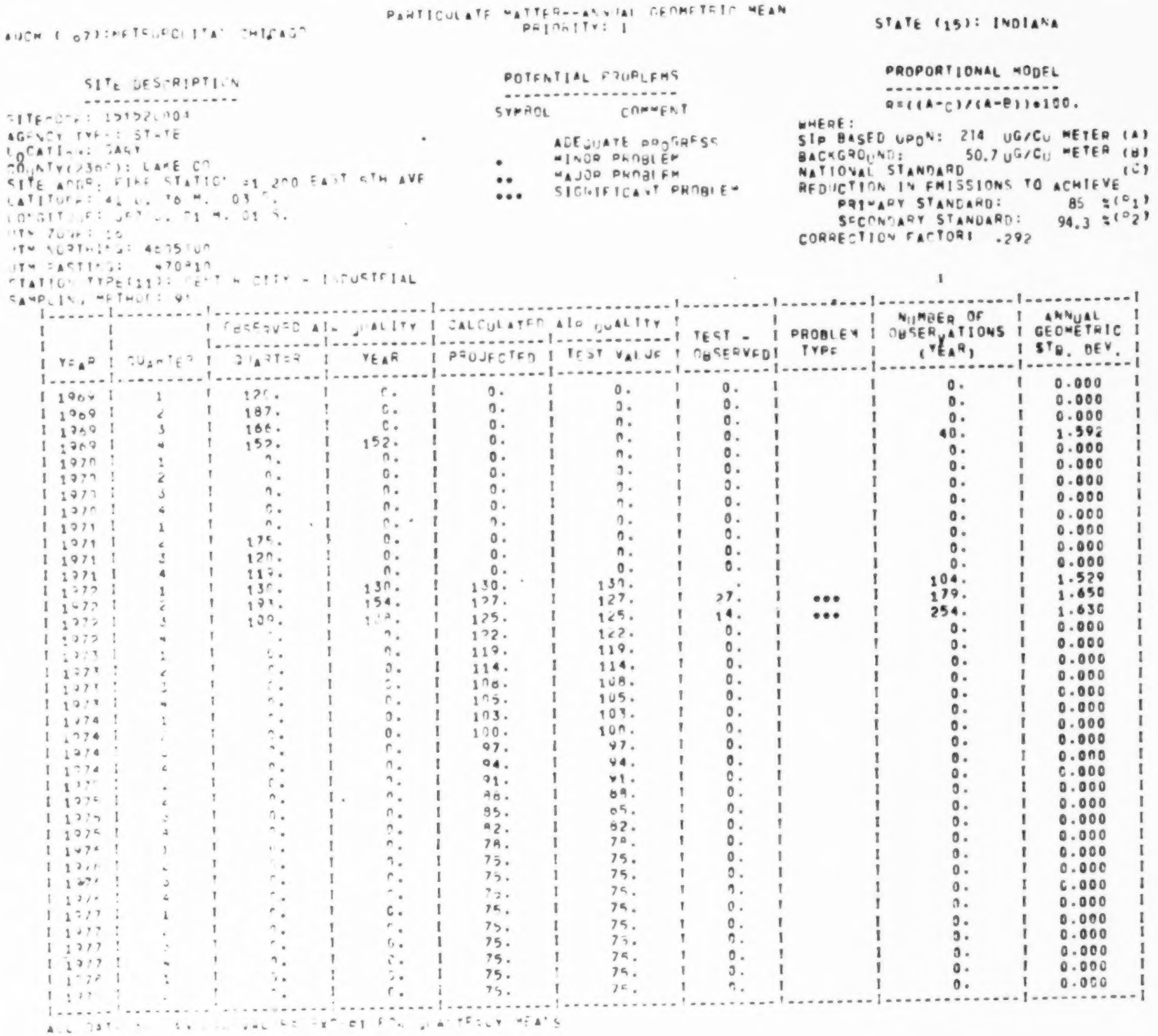
KEY		Station No.	SAROAD No.	Station No.	SAROAD No.
Particulate Matter	○	1	151520009	8	141220018
Sulfur Oxides	◇	2	151520004	9	141220013
		3	151520001	10	141220012
		4	151180001	11	141220008
		5	141220022	12	141220002
		6	141220021	13	141220001
		7	141220020		

SELECTED AIR QUALITY MONITORING STATIONS

METROPOLITAN CHICAGO INTERSTATE AQCR (067)

Scale: 1 inch = 4 miles

FIGURE 5



```
AQCR ( 67):METROPOLITAN CHICAGO          PARTICULATE MATTER--ANNUAL GEOMETRIC MEAN          STATE (15): INDIANA
                                                       PRIORITY: I

        SITE DESCRIPTION                         POTENTIAL PROBLEMS                         PROPORTIONAL MODEL
        ----------------                         ------------------                         ------------------
SITE CODE: 151520004                          SYMBOL        COMMENT                        R=((A-C)/(A-B))*100.
AGENCY TYPE: STATE                                                                   WHERE:
LOCATION: GARY                                        ADEQUATE PROGRESS             SIP BASED UPON:  214  UG/CU METER (A)
COUNTY(2300): LAKE CO                          *      MINOR PROBLEM                 BACKGROUND:      50.7 UG/CU METER (B)
SITE ADDR: FIRE STATION #1 200 EAST 5TH AVE    **     MAJOR PROBLEM                 NATIONAL STANDARD                 (C)
LATITUDE: 41 D. 36 M.  03 S.                   ***    SIGNIFICANT PROBLEM           REDUCTION IN EMISSIONS TO ACHIEVE
LONGITUDE: 087 D. 21 M. 01 S.                                                            PRIMARY STANDARD:      85  %(P1)
UTM ZONE: 16                                                                               SECONDARY STANDARD:  94.3 %(P2)
UTM NORTHING: 4605100                                                               CORRECTION FACTOR:  .292
UTM EASTING:   470810
STATION TYPE(11): CENTER CITY - INDUSTRIAL                                                        I
SAMPLING METHOD: 91
   I------I---------I-----------------------I-------------------------I----------I---------I---------------I------------I
   I      I         I OBSERVED AIR QUALITY  I CALCULATED AIR QUALITY  I          I         I   NUMBER OF   I   ANNUAL   I
   I      I         I-----------I-----------I-----------I-------------I  TEST -  I PROBLEM I OBSERVATIONS  I GEOMETRIC  I
   I YEAR I QUARTER I  QUARTER  I   YEAR    I PROJECTED I TEST VALUE  I OBSERVED I  TYPE   I    (YEAR)     I STD. DEV.  I
   I------I---------I-----------I-----------I-----------I-------------I----------I---------I---------------I------------I
   I 1969 I    1    I   120.    I     0.    I     0.    I      0.     I    0.    I         I       0.      I   0.000    I
   I 1969 I    2    I   187.    I     0.    I     0.    I      0.     I    0.    I         I       0.      I   0.000    I
   I 1969 I    3    I   166.    I     0.    I     0.    I      0.     I    0.    I         I       0.      I   0.000    I
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   I 1970 I    1    I     0.    I     0.    I     0.    I      0.     I    0.    I         I       0.      I   0.000    I
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   I 1970 I    4    I     0.    I     0.    I     0.    I      0.     I    0.    I         I       0.      I   0.000    I
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   I 1977 I    2    I     0.    I     0.    I    75.    I     75.     I    0.    I         I       0.      I   0.000    I
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   I 1977 I    4    I     0.    I     0.    I    75.    I     75.     I    0.    I         I       0.      I   0.000    I
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   I 1978 I    2    I     0.    I     0.    I    75.    I     75.     I    0.    I         I       0.      I   0.000    I
   I------I---------I-----------I-----------I-----------I-------------I----------I---------I---------------I------------I
ALL DATA ARE ANNUAL VALUES EXCEPT FOR QUARTERLY MEANS
```
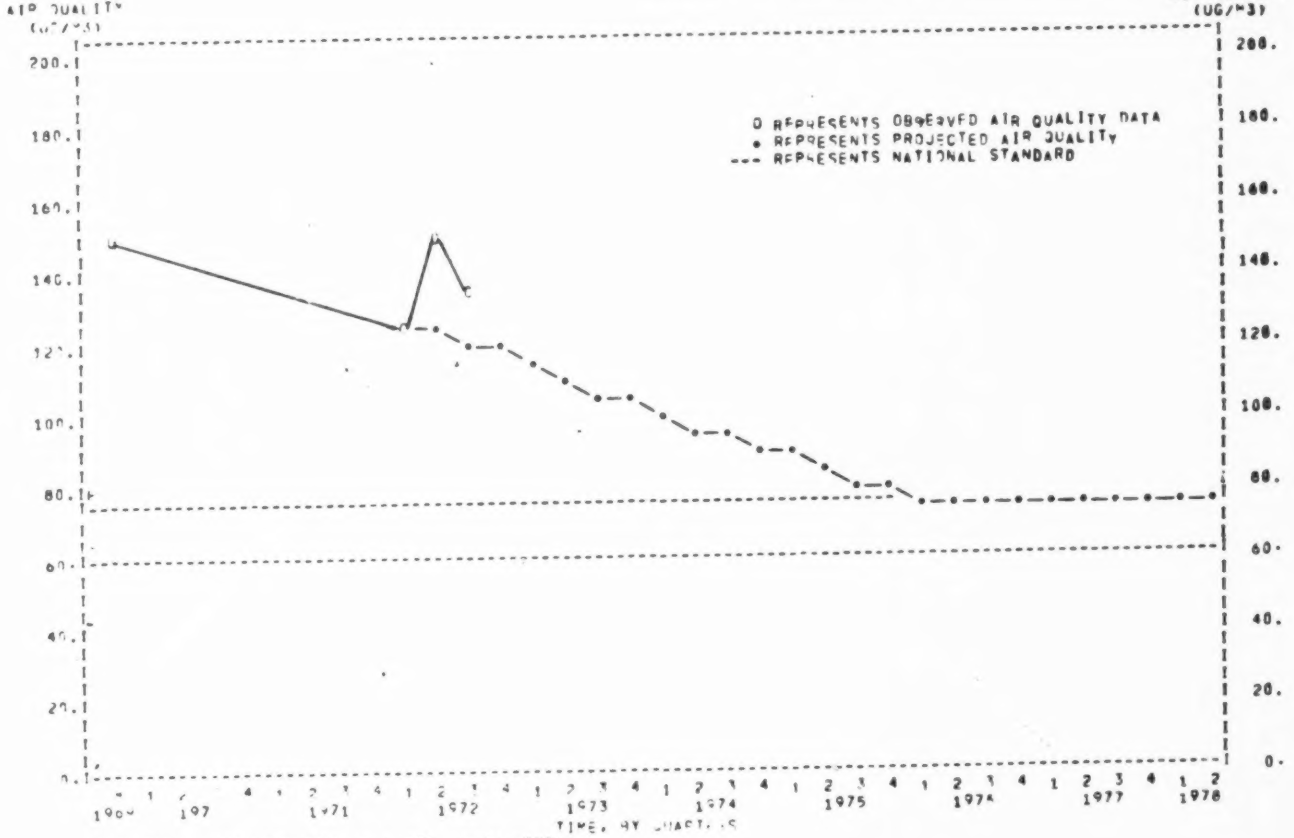

②

FIGURE 6

```
                                     PARTICULATE MATTER--ANNUAL GEOMETRIC MEAN
AQCR ( 67):METROPOLITAN CHICAGO                     PRIORITY: I                          STATE (15): INDIANA

                                                                                   PROPORTIONAL MODEL
      SITE DESCRIPTION                                                             ------------------
      ----------------                                      SIP BASED UPON: 214   UG/CU METER
SITECODE: 151520003                                         CORRECTION FACTOR:  .292
AGENCY TYPE: STATE                                          REDUCTION IN EMISSIONS TO ACHIEVE PRIMARY STANDARD:   85  %
STATION TYPE(11): CENTER CITY - INDUSTRIAL *                REDUCTION IN EMISSIONS TO ACHIEVE SECONDARY STANDARD:  94.3 %
SAMPLING METHOD: 91                                         BACKGROUND:  50.7 UG/CU METER
```



--- NATIONAL PRIMARY STANDARD (75 UG/CU METER)
--- NATIONAL SECONDARY STANDARD (60 UG/CU METER)

②

FIGURE 7

```
                                              PARTICULATE MATTER--ANNUAL GEOMETRIC MEAN
AQCR ( 67):METROPOLITAN CHICAGO                           PRIORITY: I                        STATE (15): INDIANA

       SITE DESCRIPTION                               POTENTIAL PROBLEMS                         PROPORTIONAL MODEL
       ----------------                               ------------------                         ------------------
SITECODE: 151180001                                   SYMBOL        COMMENT                      R=((A-C)/(A-B))*100.
AGENCY TYPE: EPA/ATMOS. SURV.                                                               WHERE:
LOCATION: EAST CHICAGO                                        ADEQUATE PROGRESS             SIP BASED UPON: 214 . UG/CU METER (A)
COUNTY(2760): LAKE CO                                  *      MINOR PROBLEM                 BACKGROUND:        50.7 UG/CU METER (B)
SITE ADDR: CENTRAL FIRE STA 141ST + COLUMBUS           **     MAJOR PROBLEM                 NATIONAL STANDARD                   (C)
LATITUDE: 41 D. 38 M. 00 S.                            ***    SIGNIFICANT PROBLEM           REDUCTION IN EMISSIONS TO ACHIEVE
LONGITUDE: 087 D. 29 M. 00 S.                                                                    PRIMARY STANDARD:      85 . %(R1)
UTM ZONE: 16                                                                                     SECONDARY STANDARD:    94.3 %(R2)
UTM NORTHING: 4608962                                                                       CORRECTION FACTOR:  .177
UTM EASTING:    459742
STATION TYPE(23): SUBURBAN - COMMERCIAL
SAMPLING METHOD: 91
    I------I---------I------------------------I-------------------------I----------I----------I---------------I-----------I
    I      I         I OBSERVED AIR QUALITY   I CALCULATED AIR QUALITY  I          I          I  NUMBER OF    I  ANNUAL   I
    I      I         I-----------I------------I------------I------------I TEST -   I PROBLEM  I OBSERVATIONS  I GEOMETRIC I
    I YEAR I QUARTER I  QUARTER  I    YEAR    I PROJECTED  I TEST VALUE I OBSERVED I  TYPE    I    (YEAR)     I STD. DEV. I
    I------I---------I-----------I------------I------------I------------I----------I----------I---------------I-----------I
    I 1969 I    1    I   174.    I      0.    I     0.     I     0.     I    0.    I          I       0.      I   0.000   I
    I 1969 I    2    I   181.    I      0.    I     0.     I     0.     I    0.    I          I       0.      I   0.000   I
    I 1969 I    3    I   174.    I      0.    I     0.     I     0.     I    0.    I          I       0.      I   0.000   I
    I 1969 I    4    I   151.    I    169.    I     0.     I     0.     I    0.    I          I      25.      I   1.573   I
    I 1970 I    1    I   172.    I    169.    I     0.     I     0.     I    0.    I          I      25.      I   1.451   I
    I 1970 I    2    I   215.    I    176.    I     0.     I     0.     I    0.    I          I      26.      I   1.431   I
    I 1970 I    3    I   156.    I    169.    I     0.     I     0.     I    0.    I          I      26.      I   1.341   I
    I 1970 I    4    I   183.    I    177.    I   177.     I   177.     I    0.    I          I      26.      I   1.420   I
    I 1971 I    1    I   142.    I    168.    I   172.     I   172.     I   -4.    I          I      26.      I   1.395   I
    I 1971 I    2    I   196.    I    164.    I   169.     I   169.     I   -4.    I          I      26.      I   1.367   I
    I 1971 I    3    I   137.    I    161.    I   165.     I   165.     I   -4.    I          I      26.      I   1.366   I
    I 1971 I    4    I   133.    I    150.    I   161.     I   161.     I  -11.    I          I      26.      I   1.374   I
    I 1972 I    1    I   106.    I    130.    I   157.     I   157.     I  -27.    I          I      34.      I   1.587   I
    I 1972 I    2    I   162.    I    133.    I   153.     I   153.     I  -20.    I          I      43.      I   1.585   I
    I 1972 I    3    I   130.    I    131.    I   149.     I   149.     I  -18.    I          I      51.      I   1.607   I
    I 1972 I    4    I     0.    I      0.    I   145.     I   145.     I    0.    I          I       0.      I   0.000   I
    I 1973 I    1    I     0.    I      0.    I   141.     I   141.     I    0.    I          I       0.      I   0.000   I
    I 1973 I    2    I     0.    I      0.    I   133.     I   133.     I    0.    I          I       0.      I   0.000   I
    I 1973 I    3    I     0.    I      0.    I   125.     I   125.     I    0.    I          I       0.      I   0.000   I
    I 1973 I    4    I     0.    I      0.    I   121.     I   121.     I    0.    I          I       0.      I   0.000   I
    I 1974 I    1    I     0.    I      0.    I   117.     I   117.     I    0.    I          I       0.      I   0.000   I
    I 1974 I    2    I     0.    I      0.    I   112.     I   112.     I    0.    I          I       0.      I   0.000   I
    I 1974 I    3    I     0.    I      0.    I   108.     I   108.     I    0.    I          I       0.      I   0.000   I
    I 1974 I    4    I     0.    I      0.    I   104.     I   104.     I    0.    I          I       0.      I   0.000   I
    I 1975 I    1    I     0.    I      0.    I    99.     I    99.     I    0.    I          I       0.      I   0.000   I
    I 1975 I    2    I     0.    I      0.    I    94.     I    94.     I    0.    I          I       0.      I   0.000   I
    I 1975 I    3    I     0.    I      0.    I    90.     I    90.     I    0.    I          I       0.      I   0.000   I
    I 1975 I    4    I     0.    I      0.    I    85.     I    85.     I    0.    I          I       0.      I   0.000   I
    I 1976 I    1    I     0.    I      0.    I    80.     I    80.     I    0.    I          I       0.      I   0.000   I
    I 1976 I    2    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1976 I    3    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1976 I    4    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1977 I    1    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1977 I    2    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1977 I    3    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1977 I    4    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1978 I    1    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I 1978 I    2    I     0.    I      0.    I    75.     I    75.     I    0.    I          I       0.      I   0.000   I
    I------I---------I-----------I------------I------------I------------I----------I----------I---------------I-----------I
    ALL DATA ARE ACTUAL VALUES EXCEPT FOR QUARTERLY MEANS
```

④

FIGURE 8

Reproduced from best available copy.

PARTICULATE MATTER--ANNUAL GEOMETRIC MEAN
PRIORITY: I

AQCR ([illegible]): METROPOLITAN CHICAGO

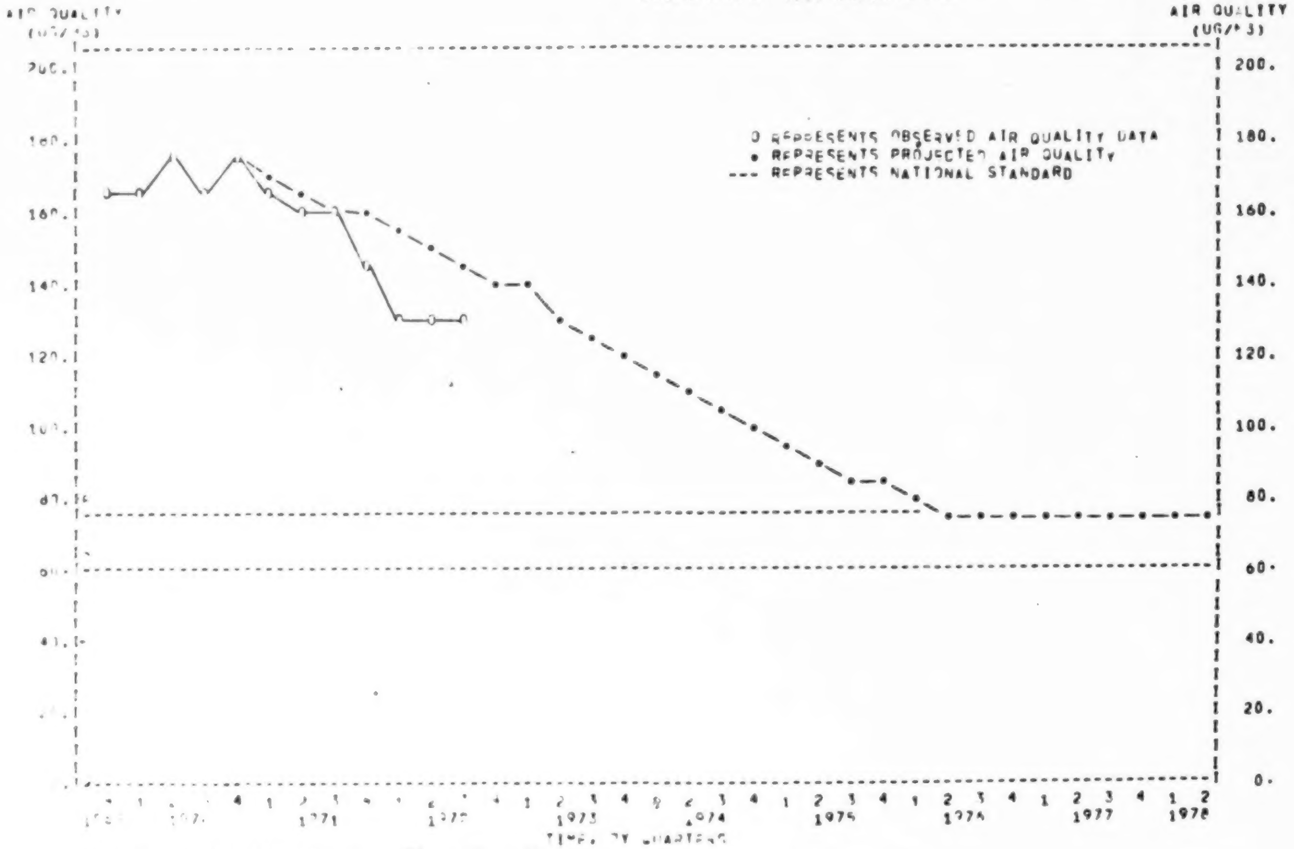
STATE (15): INDIANA

SITE DESCRIPTION

SITECODE: 1011 [illegible]
AGENCY TYPE: [illegible]
STATION TYPE: [illegible] SUBURBAN - COMMERCIAL
SAMPLING METHOD: 91

PROPORTIONAL MODEL

SIP BASED UPON : 214. UG/CU METER
CORRECTION FACTOR: .177
REDUCTION IN EMISSIONS TO ACHIEVE PRIMARY STANDARD: 85 %
REDUCTION IN EMISSIONS TO ACHIEVE SECONDARY STANDARD: 94.3 %
BACKGROUND: 50.7 UG/CU METER



--- NATIONAL PRIMARY STANDARD (75 UG/CU METER)
--- NATIONAL SECONDARY STANDARD (60 UG/CU METER)

④

d. Analytical Summary

A short summary of the PRMS results for the 17 AQCR's that were reviewed is presented region by region on the following pages. A supporting document has been prepared by OAQPS that contains the detailed summary, region maps, and important individual site reviews for each AQCR analyzed. This supporting document is available from OAQPS upon request.

The appropriate Regional Offices have been notified and asked to investigate each "potential problem" that has been identified by the PRMS. The results of these investigations and others will be discussed in the next Administrator's Progress Report. For the next report, it is planned that an additional 50 AQCR's will be analyzed through the PRMS. These will be selected on the basis of potential air pollution problems, population and the recommendations of the Regional Offices.

The remaining 180 AQCR's will be monitored by mid-1974 and a selected number of these will also be analyzed and presented in subsequent reports.

E. Progress Summary

Annual Standards for Particulate Matter (PM) and Sulfur Oxides (SOx)

1. METROPOLITAN BALTIMORE INTRASTATE (115) MARYLAND

A very limited quantity of data was available for each specific monitoring site in this AQCR. Good progress was noted in reducing P.M. concentrations where the data was available. Similarly, very little SO_x data was available but where available it indicated adequate progress was made.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	27	(100)	13	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

2. METROPOLITAN BIRMINGHAM INTRASTATE AQCR (004) ALABAMA

Adequate progress in reducing SO_x concentrations was noted. Except for one "potential problem" with increasing P.M. concentrations in Tarrant City, that will be reviewed by Region IV, progress is being made in improving the P.M. air quality.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	7	(88)	1	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	1	(13)	0	(0)

[a]percent of monitoring sites analyzed

3. METROPOLITAN BOSTON INTRASTATE (119) MASSACHUSETTS

The Boston Metropolitan area is on schedule and making progress in controlling P.M. However, Worchester, which is approximately 35 miles west of Boston, has shown some problems in the past and will be kept under surveillance by the Regional Office. Limited data is available for SO_x; however, from the data available, very good progress has been made in controlling SO_x.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	18	(100)	2	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

4. METROPOLITAN CHICAGO INTERSTATE AQCR (067) ILLINOIS-INDIANA

The Chicago area has made exceptional progress in the improvement of P.M. air quality; however, the PRMS indicates that the Gary area may have some significant problems in attaining the standards. The region has made outstanding progress in the control of SO_x.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	49	(91)	19	(100)
Minor problem	*	1	(2)	0	(0)
Major problem	**	1	(2)	0	(0)
Significant problem	***	3	(6)	0	(0)

[a]percent of monitoring sites analyzed

5. GREATER METROPOLITAN CLEVELAND INTRASTATE AQCR (174) OHIO

The PRMS indicates that adequate progress is being made throughout the region. The P.M. concentrations at some sites did not improve any during the time period reviewed and were not projected to have improved. Observed SO_x concentrations had improved prior to 1972 but are now deteriorating. No "potential problems" were indicated for SO_x because the observed air quality is still below the projected air quality; however, if the upward trend continues, a "potential problem" could develop. This region will be kept under special surveillance.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	23	(100)	17	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

6. METROPOLITAN DENVER INTRASTATE AQCR (036) COLORADO

A large P.M. data base was available for this AQCR. Only two monitoring sites in the region indicated any possible problems at this time. No major improvements in air quality was observed. This region is classified Priority III for SO_x and although data was limited, all observed data was below the secondary standard.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	10	(91)	2	(100)
Minor problem	*	1	(4)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	1	(4)	0	(0)

[a]percent of monitoring sites analyzed

7. METROPOLITAN HOUSTON-GALVESTON INTRASTATE AQCR (216) TEXAS

The limited air quality data available for this region made the review difficult. The particulate matter concentrations for this region were low. Adequate progress is being made except at Pasadena which is approximately 4 miles east of Houston. Here a "potential problem" is indicated. Although the SO_x data was limited, it indicated adequate progress is being made.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	10	(90)	2	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	1	(9)	0	(0)

[a]percent of monitoring sites analyzed

8. METROPOLITAN INDIANAPOLIS INTRASTATE AQCR (080) INDIANA

Adequate progress is being obtained for P.M.; however, no major air quality reductions were scheduled during the time period reviewed. Although SO_x data is limited, available data indicate adequate progress is being made.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	16	(94)	1	(100)
Minor problem	*	1	(6)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

9. METROPOLITAN LOS ANGELES INTRASTATE AQCR (024) CALIFORNIA

No air quality projections were developed for this region. Thus, no analysis was performed by the PRMS. However, a review of the observed air quality data indicates no major reductions have taken place and, in fact, the air quality appears to be degrading. A detailed analysis of this region will be conducted for the next report.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	( )[a]
Acceptable progress	---				(100)
Minor problem	*			0	(0)
Major problem	**			0	(0)
Significant problem	***			0	(0)

[a]percent of monitoring sites analyzed

10. NATIONAL CAPITAL INTERSTATE AQCR (047)

VIRGINIA-MARYLAND-DISTRICT OF COLUMBIA

Adequate progress was noted for this region. Progress is being made by all three major political jurisdictions involved (Maryland, District of Columbia, and Virginia). A possible problem with air quality deterioration was noted for Quantico, Virginia. Although the particulate matter concentrations are below the secondary standard, they appear to be increasing in an erratic fashion. This site will remain under special surveillance to assure it does not exceed the standard. Available data indicates that adequate progress is being made in controlling SO_x.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	52	(100)	14	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a] percent of monitoring sites analyzed

11. NEW JERSEY-NEW YORK-CONNECTICUT INTERSTATE AQCR (043)

NEW JERSEY-NEW YORK-CONNECTICUT

Outstanding progress has been made in improving both the P.M and SO_x air qualitv. Only one "potential problem" was identified by the PRMS for this region. This was for P.M. at a monitoring site approximately 16 miles southwest of Newark, New Jersey. A review of this site is scheduled.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	49	(98)	7	(100)
Minor problem	*	1	(2)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

12. NIAGARA FRONTIER INTRASTATE AQCR (162) NEW YORK

Although initial P.M. concentrations were extremely high, exceptional progress has been made toward attainment of the standards. No SO_x problems were identified from the available data.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	42	(98)	2	(100)
Minor problem	*	1	(2)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

13. METROPOLITAN PHILADELPHIA INTERSTATE AQCR (045)

NEW JERSEY-PENNSYLVANIA-DELAWARE

Adequate progress was noted for P.M. although the limited data at each monitoring site made the review questionable. Available SO_x data indicate that adequate progress was being made.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	23	(96)	8	(100)
Minor problem	*	1	(4)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a] percent of monitoring sites analyzed

14. PHOENIX-TUCSON INTRASTATE (015) ARIZONA

No air quality projections were developed for this region. Therefore, no analysis was performed by PRMS. A review of the available data indicates that no major improvements have taken place. In fact, the P.M. concentrations in downtown Phoenix have deteriorated greatly since 1969. The available SO_x data indicates that both Phoenix and Tucson have air quality below the secondary standard. The smelter monitoring project and fugitive dust study should be reviewed for special data relative to these topics. (See page 3)

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	7	(70)	2	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	0	(0)	0	(0)
Significant problem	***	3	(30)	0	(0)

[a] percent of monitoring sites analyzed

15. PUGET SOUND INTRASTATE (229) WASHINGTON

Generally, the P.M. concentrations in this region were below the secondary standard. One monitoring site in Tacoma was "flagged" as having a significant deterioration problem. A review of this site by Region X will follow to determine the reasons for the degradation of air quality. No potential problems have been identified for SO_x.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	23	(96)	7	(100)
Minor problem	*	0	(1)	0	(0)
Major problem	**	1	(4)	0	(0)
Significant problem	***	0	(0)	0	(0)

[a]percent of monitoring sites analyzed

16. METROPOLITAN ST. LOUIS INTERSTATE AQCR (070) MISSOURI-ILLINOIS

The P.M. air quality data for this region was very limited at most of the monitoring sites. The available data was analyzed and indicated a "potential problem" in downtown St. Louis. A review by the Region VII Office will determine the nature of this problem. The SO_x data indicated acceptable progress has been made.

PRMS ANALYSIS - ANNUAL STANDARDS					
Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	14	(88)	2	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	1	(6)	0	(0)
Significant problem	***	1	(6)	0	(0)

[a]percent of monitoring sites analyzed

17. WASATCH FRONT INTRASTATE (220) UTAH

The available aerometric data was analyzed by the PRMS. Both Ogden and Salt Lake City were identified as having a "potential problem" in attaining the P.M. ambient standard. Salt Lake City in particular was noted as having a significant problem. The available SO_x data indicated that Salt Lake City's air quality was presently below the secondary standard. The smelter ambient air monitoring project should be reviewed for special data relative to the Kennecott smelter at Garfield, Utah.

PRMS ANALYSIS - ANNUAL STANDARDS

Problem Type	Symbol	P.M.		SO_x	
		Number	(%)[a]	Number	(%)[a]
Acceptable progress	---	0	(0)	1	(100)
Minor problem	*	0	(0)	0	(0)
Major problem	**	1	(50)	0	(0)
Significant problem	***	1	(50)	0	(0)

[a] percent of monitoring sites analyzed

F. Status of Other Regions

Time permitted the detailed analysis and/or tracking of only 17 of 247 regions by the PRMS in this report. For the remaining 230 regions, however, the latest SAROAD data for all pollutants except NO_x were reviewed and compared with the applicable air quality standards. This review shows that air quality in most regions is improving (See Table 18, 19, and 20). However, in a few of the regions, air quality is being measured at levels exceeding the original SIP design values. One reason for this may be that additional monitoring stations have been installed and are recording more representative data than was available for the SIP design. There are 12 Priority III regions that now have ambient concentrations above the primary particulate matter standard. A similar situation exists for other pollutants; one Priority III region for SO_x; 22 for CO; and one for photochemical oxidants (See Tables 21, 22, 23, and 24). In addition, numerous other regions which were originally classified Priority I or II now have higher measured ambient concentrations in 1970-71-72 than the level used as a basis for plan design (greater than 10%; See Tables 25 and 26. It is not possible to say at this time that these regions will require plan revisions. They are, however, in need of further analysis and as such are candidates to be added to the 15 regions already under surveillance by the PRMS.

In most cases, data from only one air monitoring site per region is presently available. Consequently, because of the paucity of data, it is difficult to establish with any certainty what regions will attain all standards. Corrective guidance will be given through the R.O.'s and to the States in these matters.

Table 18

Priority I and II Regions - Maximum Sampling Site Not Exceeding the Particulate Standards in 1972

Regions/State	Priority Classification	Ambient Concentrations ($\mu g/m^3$)					
		1970		1971		1972	
		Annual	2nd max. 24-hr.	Annual	2nd max. 24-hr.	Annual	2nd max. 24-hr.
1 Alabama-Tombigee Rivers, Alabama	II	-	-	-	-	48	130
29 San Diego, California	II	*	*	-	-	59	124
41 Eastern Connecticut, Connecticut	II	-	92	-	101	-	142
48 Central Florida, Florida	II	-	-	-	-	-	67
53 Augusta-Aiken, Georgia	I	*	*	-	-	49	121
57 Northeast Georgia, Georgia	II	-	122	-	-	-	67
59 Southwest Georgia, Georgia	II	-	135	-	-	-	133
73 Rockford-Janesville-Beloit, Illinois/Wisconsin	II	*	*	*	*	-	145
83 Southern Indiana, Indiana	IA	33	69	40	62	34	121
104 North Central Kentucky, Kentucky	II	-	97	-	-	42	89
109 Down East, Maine	IA	25	65	23	38	25	65
110 Metropolitan Portland, Maine	I	*	*	*	*	-	138
114 Eastern Shore, Maryland	II	-	-	-	-	56	147
117 Berkshire, Massachusetts	II	-	-	*	*	54	150
142 Helena, Montana	IA	-	108	-	90	-	83
167 Metropolitan Charlotte, North Carolina/South Carolina	I	*	*	*	*	47	112
174 Greater Metropolitan Cleveland, Ohio	I	*	*	*	*	-	142
193 Portland, Washington	I	*	*	*	*	-	109
198 Camden-Sumpter, South Carolina	II	-	-	-	-	53	129
212 Austin-Waco, Texas	II	60	107	-	116	-	123
217 Metropolitan San Antonio, Texas	II	*	*	*	*	54	138
221 Vermont (Remainder), Vermont	II	28	57	29	62	30	54
237 Lake Michigan, Michigan	II	-	71	*	*	23	55
242 Metropolitan Cheyenne, Wyoming	II	34	34	26	52	30	53

- No data

* In violation

Standard

Primary 75 $\mu g/m^3$ - annual
260 $\mu g/m^3$ - 24-hour (not to be exceeded more than once per year.)

Secondary
60 $\mu g/m^3$ - annual
150 $\mu g/m^3$ - 24-hour (not to be exceeded more than once per year.)

Table 19

Priority I and IA Regions - Maximum Sampling Site Not Exceeding the Primary Standards For Sulfur Dioxide in 1972

Region/State	Ambient Concentrations					
	1970		1971		1972	
	Annual	2nd max. 24-hr.	Annual	2nd max. 24-hr.	Annual	2nd max. 24-hr.
42 Hartford-New Haven-Springfield, Connecticut/Massachusetts	57	161	44	136	26	102
52 West Central Florida, Florida	17	66	20	47	20	58
56 Metropolitan Atlanta, Georgia	20	62	22	49	14	48
58 Savannah-Beaufort, Georgia/South Carolina	10	27	7	16	8	60
82 South Bend-Elkhart-Benton Harbor, Indiana/Michigan	10	29	-	-	6	248
83 Southern Indiana, Indiana	9	23	-	18	-	23
106 Southern Louisiana-Southeast Texas, Louisiana/Texas	8	26	10	26	18	109
107 Androscoggin Valley, Maine, New Hampshire	-	10	7	17	-	13
109 Down East, Maine	8	20	7	22	6	12
115 Metropolitan Baltimore, Maryland	54	156	29	-	48	81
119 Metropolitan Boston, Massachusetts	30	129	*	*	67	220
131 Minneapolis-St. Paul, Minnesota	38	162	23	96	17	264
153 El Paso-Las Cruces-Alamagordo, Texas	23	63	-	-	-	93
197 Southwest Pennsylvania, Pennsylvania	57	137	-	-	63	121
199 Charleston, South Carolina	-	-	-	-	-	38
207 Eastern Tennessee-Southwest Virginia, Virginia/Tennessee	-	5	-	-	16	23
211 Amarillo-Lubbock, Texas	-	17	-	-	-	7
214 Corpus Christi-Victori, Texas	6	14	-	-	4	7
216 Metropolitan Houston-Galveston, Texas	10	18	-	-	8	47
220 Wasatch Front, Utah	9	26	-	-	10	24

Table 19 (con't.)

Region/State	Ambient Concentrations 1970 Annual	 1970 2nd max. 24-hr.	 1971 Annual	 1971 2nd max. 24-hr.	 1972 Annual	 1972 2nd max. 24-hr.
229 Puget Sound, Washington	*	*	*	*	61	-
244 Puerto Rico	15	27	-	-	6	13
13 Clark-Mohave, Arizona/ Nevada	-	-	-	2	2	2
14 Four Corners, Arizona/ New Mexico/ Colorado/ Utah	-	12	-	-	-	26
47 National Capital, D.C./ Virginia / Maryland	-	207	*	*	40	25
54 Central Georgia, Georgia	-	-	-	-	-	18
181 Steubenville-Weirton-Wheeling, Ohio/West Virginia	-	-	-	-	55	167
193 Portland, Washington	-	39	-	-	33	-
120 Metropolitan Providence, Massachusetts/Rhode Island	67	267	26	54	64	255
121 Merrimack Valley-Southern New Hampshire, New Hampshire/Massachusetts	-	-	-	-	44	-
128 Southeast Minnesota-La Crosse, Minnesota/ Wisconsin	-	-	-	-	-	83
141 Great Falls, Montana	-	15	-	10	4	7
150 New Jersey (Remainder), New Jersey	-	-	25	-	21	-
62 Eastern Washington-Northern Idaho, Idaho/ Washington	-	27	-	-	57	-
65 Burlington-Keokuk, Illinois/Iowa	-	134	-	171	28	82
70 Metropolitan St. Louis, Illinois/ Missouri	40	-	58	-	28	11[illegible]
75 West Central Illinois, Illinois	-	-	-	-	-	23
113 Cumberland-Keyser, Maryland/West Virginia	-	-	-	-	20	81

- No data

* In violation

Standard: 80 μg/m^3 - annual
365 μg/m^3 - 24-hour (not to be exceeded more than once per year)

Note: No 1972 data was reported for five regions; therefore, it could not be determined if they met or exceeded the primary standards.

Table 20

Priority I Regions - Maximum Sampling Site Not Exceeding the Photochemical Oxidant Standards in 1972

Region/State		Ambient Concentrations ($\mu g/m^3$)		
		1970 2nd max. 1-hr.	1971 2nd max. 1-hr.	1972 2nd max. 1-hr.
15	Phoenix-Tucson, Arizona	-	-	30
49	Jacksonville-Brunswick, Florida/Georgia	-	-	130
70	Metropolitan St. Louis, Illinois/Missouri	151	*	140
79	Metropolitan Cincinnati, Indiana/Kentucky/Ohio	-	*	140
174	Greater Metropolitan Cleveland, Ohio	-	-	10

- No data

* In violation

Standard

160 $\mu g/m^3$ - 1-hour (not to be exceeded more than once per year.)

Note: Regions (15) Phoenix-Tucson (Arizona) and (79) Metropolitan Cincinnati (Indiana, Ohio and Kentucky) exceeded the oxidant standard one time)

Table 21

Priority III Regions with Present Ambient Concentrations Above the National Primary Standards for Particulate Matter

Region/State	Ambient Concentrations ($\mu g/m^3$)					
	1970		1971		1972	
	Annual	2nd Max. 24-hr.	Annual	2nd Max. 24-hr.	Annual	2nd Max. 24-hr.
11 Southeastern Alaska, Alaska	-	-	-	-	-	346
20 Northeast Arkansas, Arkansas	-	-	-	-	120	252
35 Grand Mesa, Colorado	114	320	98	258	91	532
39 San Luis, Colorado	83	195	95	211	97	152
40 Yampa, Colorado	-	-	94	313	99	375
86 Metropolitan Sioux City, Iowa/Nebraska/South Dakota	-	110	94	139	81	190
139 Southwest Minnesota, Minnesota	-	-	-	-	-	337
146 Nebraska (remainder), Nebraska	20	59	99	228	99	302
189 Southwestern Oklahoma, Oklahoma	-	266	108	412	95	215
236 Southern West Virginia, West Virginia	-	-	-	-	170	380
246 Guam	-	-	-	-	-	656
138 Southeast Missouri, Missouri	-	-	-	-	115	673

- No data

Standard (primary)

75 $\mu g/m^3$ - annual

260 $\mu g/m^3$ - 24-hour (not to be exceeded more than once per year)

Note: Regions (34) Comanche (Colorado) and (187) Northwestern Oklahoma (Oklahoma) exceeded the primary 24-hour standard one time.

Table 22

Priority III Regions with Present Ambient Concentrations Above the National Primary Standards for Sulfur Dioxide

Region/State	Ambient Concentrations (μg/m³)					
	1970		1971		1972	
	Annual	2nd Max. 24-hr.	Annual	2nd Max. 24-hr.	Annual	2nd Max. 24-hr.
184 Central Oklahoma, Oklahoma	-	-	-	-	-	433

- No data

Standard

80 μg/m³ - annual
365 μg/m³ - 24-hour (not to be exceeded more than once per year)

Note: Regions (94) Metropolitan Kansas City (Missouri-Kansas) and (138) Southeast Missouri (Missouri) exceeded the primary 24-hour standard one time.

Table 23

Priority III Regions with Present Ambient Concentrations Above the National Standards for Carbon Monoxide

Region/State	Ambient Concentrations (mg/m^3)					
	1970		1971		1972	
	2nd max. 1-hour	Max. 8-hour	2nd max. 1-hour	Max. 8-hour	2nd max. 1-hour	Max. 8-hour
72 Paducah-Cairo, Kentucky/Illinois	-	-	-	-	18	16
77 Evansville-Owensboro-Henderson, Indiana/Kentucky	-	-	-	-	18	11
78 Louisville, Kentucky/Indiana	-	-	-	-	9	16
79 Metropolitan Cincinnati, Ohio/Kentucky	22	15.8	24	20.6	-	-
33 Southeast Desert, California	34	26.3	29	26.9	-	-
49 Jacksonville-Brunswick, Georgia/Florida	-	-	-	-	51	17.3
56 Metropolitan Atlanta, Georgia	-	-	-	-	32	22
60 Hawaii, Hawaii	-	-	-	-	27	13.4
85 Metropolitan Omaha-Council Bluffs, Nebraska/Iowa	-	-	-	-	31	15
95 Northeast Kansas, Kansas	-	-	-	-	40	29.9
99 South Central Kansas, Kansas	-	-	31	17.6	20	13.8
120 Metropolitan Providence, Rhode Island	-	-	-	-	25	21
148 Northwest Nevada, Nevada	-	-	-	-	25	23
151 Northeast Pennsylvania-Upper Delaware Valley, Pennsylvania/New Jersey	18	13.1	-	-	17	10.7
152 Albuquerque-Mid Rio Grande, New Mexico	-	-	28	19.0	25	16.1
162 Niagara Frontier, New York	-	-	17	13.1	16	11.9
174 Greater Metropolitan Cleveland, Ohio	-	-	-	-	19	17
184 Central Oklahoma, Oklahoma	-	-	-	-	37	23.6
208 Middle Tennessee, Tennesee	-	-	-	-	31	20.1
223 Hampton Roads, Virginia	-	-	-	-	20	16
225 State Capital, Virginia	-	-	-	-	21	10.2
234 Kanawha Valley, West Virginia	-	-	-	-	16	15.8

- No data

Standard 10 mg/m^3 - 8-hr (not to be exceeded more than once per year)
40 mg/m^3 - 1-hr (not to be exceeded more than once per year)

Table 24

Priority III Regions with Present Ambient Concentrations Above the National Standards for Photochemical Oxidants

Region/State	Ambient Concentrations 1970 2nd highest 1-hour	Ambient Concentrations 1971 2nd highest 1-hour	Ambient Concentrations 1972 2nd highest 1-hour
85 Metropolitan Omaha-Council Bluffs, Nebraska/Iowa	-	-	200

- No data

Standard

160 $\mu g/m^3$ - 1-hour (not to be exceeded more than once per year)

Note: Regions (60) Hawaii and (161) Hudson Valley (New York) exceeded the oxidant standard one time.

Table 25

Regions with Present Ambient Particulate Matter Concentrations Higher than SIP Design Concentrations (>10%)

Region	/State	Priority Classification	SIP Design Value	Ambient Concentrations ($\mu g/m^3$)		
				1970 Max. Annual	1971 Max. Annual	1972 Max. Annual
3	East Alabama, Alabama	I	71	71	77^{a}	175^{b}
22	Shreveport-Texarkana-Tyler, Arkansas/Texas/Oklahoma/Louisiana	II	91	70	80^{a}	105^{a}
36	Metropolitan Denver, Oklahoma	I	122	173	186^{a}	152^{a}
43	New Jersey-New York-Connecticut, New Jersey/New York/Connecticut	I	130	123	100^{b}	$146^{b,c}$
62	Eastern Washington-Northern Idaho, Idaho/Washington	I	94	79	82^{a}	131^{b}
64	Metropolitan Boise, Idaho	II	94	65	76^{a}	114^{b}
77	Evansville-Owensboro-Henderson, Indiana/Kentucky	I	82	82	70^{a}	97^{b}
78	Louisville, Kentucky/Indiana	I	101	75	99^{b}	$147^{b,c}$
97	Northwest Kansas, Kansas	I	77	124	100^{a}	104^{a}
115	Metropolitan Baltimore, Maryland	I	115	113	-	147^{b}
119	Metropolitan Boston, Massachusetts	I	83	129	138^{b}	$108^{b,c}$
151	Northeast Pennsylvania-Upper Delaware Valley, Pennsylvania/New Jersey	I	102	159	106^{a}	189^{a}
158	Central New York, New York	I	100	100	101^{b}	$113^{b,d}$
161	Hudson Valley, New York	I	110	122	124^{a}	124^{b}
172	North Dakota (Remainder), North Dakota	II	79	79	73^{a}	87^{a}
178	Northwest Pennsylvania-Youngstown, Pennsylvania	I	210	117	108^{a}	238^{b}
193	Portland, Washington	I	70	87	-	86^{a}
195	Central Pennsylvania, Pennsylvania	I	114	208	102^{a}	142^{b}
196	South Central Pennsylvania, Pennsylvania	I	91	98	92^{a}	136^{b}
197	Southwest Pennsylvania, Pennsylvania	I	162	127	-	191^{b}
222	Central Virginia, Virginia	I	108	114	100^{a}	138^{b}
223	Hampton Roads, Virginia	I	99	92	97^{b}	$113^{b,c}$

Table 25 (con't.)

Region, /State	Priority Classification	SIP Design Value	Ambient Concentration (µg/m³)		
			1970 Max. Annual	1971 Max. Annual	1972 Max. Annual
229 Puget Sound, Washington	I	82	82	58[b]	94[b,c]
230 South Central Washington, Washington	I	79	-	-	90
244 Puerto Rico	IA	64	204	87[b]	138[a]

- No data.

[a] Same monitoring site as 1970 value.

[b] Different monitoring site than 1970 value.

[c] Different monitoring than 1971 value.

[d] Same monitoring site as 1971 value.

Table 26
Priority I Regions for Carbon Monoxide with Present Concentrations
Higher than SIP Design Values (>10)

Region/State		Design Value	Ambient Concentrations (mg/m^3)		
			1970 Max. 8-hr.	1971 Max. 8-hr.	1972 Max. 8-hr.
36	Metropolitan Denver, Colorado	21	37.1	38.2[a]	33.3[a]
43	New Jersey-New York-Connecticut, New Jersey/New York/Connecticut	22	30	28.8[b]	30.6[b,d]
45	Metropolitan Philadelphia, Pennsylvania/New Jersey/Delaware	18	39.5	28.9[a]	44 [b]
150	New Jersey (Remainder), New Jersey	13	33.6	14.8[a]	22.7[b]
229	Puget Sound, Washington	18	-	-	24.7

- No data

[a] Same monitoring site as 1970 value.

[b] Different monitoring site than 1970 value.

[c] Different monitoring site than 1971 value.

[d] Same monitoring site than 1971 value.

G. Regional Office Evaluation of State Progress

The EPA Regional Offices have reported the significant accomplishments, problems and other activities related to each State Implementation Plan. The areas covered in this summary (Table 27) include resources, legislation, delegation of EPA authority, enforcement, and Federal assistance.

Table 27

SUMMARY OF SIGNIFICANT STATE PROGRESS AND OTHER ACTIVITIES RELATED TO STATE IMPLEMENTATION PLANS**

Region and state	Percent of 1975 SIP Manpower Requirement**	Legislation D = deficiency A = accomplisned P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
REGION I					
Connecticut	65%	Authority to set and levy fines (A)	None	180 sources under compliance schedule	Indirect sources, emission inventory, TSP, sec. stds. transp. controls, significant deterioration
Maine	65%	Open burning regulations, compliance postponed from 1/1/74 to 1/1/75 (A)	None	Licensing program behind schedule; 30% of open burning (tires, rubber products) complied with first increment of progress	None yet - anticipate assistance with compliance schedules
Massachusetts	75%	Postpone until 7/1/74 regs. of burning residual fuel oil in units rated 3-6 10^6 BTU in urban areas(A)	None	Nothing reported	Develop TSP sec. stnds. develop SO_2 std. plan for AQCR #119. Identification of sources subject to Mass. regs. not yet identified.
New Hampshire	45%	S content for #5/6 fuel oil in AQCR 107 2.2% (A) S content for #5/6 fuel oil in AQCR's 121 & 149 2.0% (A)	None	Enforcement being accomplished via voluntary compliance	Indirect sources; emission inventory; significant deterioration
Rhode Island	60%	Incinerators less than 2K#/hr input capacity into compliance by 1/31/74. (A)	EPA delegation authority on source records refused by R.I.	Legally enforceable court orders available; several sources have signed orders, 10 more expected	Monitoring equipment for Set II pollutants; Emergency episode manual

*Source: EPA Regional Office Evaluation Reports for semi-annual Period ending June 30, 1973

**Includes State and local air pollution control agencies

Table 27 (con't.)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplisned P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
Vermont	125%	Established variance board (A) Burning of natural wood allowed (A)	None	47 consent agreements; 80 enforcement actions in progress	Emission inventory update
REGION II					
New Jersey	70%	Adopted regulations for review (A) of new sources and modifications	None	100 orders issued 500 permit applications processed	Devel. transportation control plans
New York	55%	Regulations adopted for control of sulfur in Fuels (A)	None	Program to recertify all emission sources	Development of emission factors for apartment house boilers and incinerators; develop transportation control plans: emission data collection & NEDS training
Puerto Rico	60%	Public hearing to postpone 2% S limitations (A)	None	41 of 225 compliance schedules acceptable	Emission date collection and NEDS Training
Virgin Islands	80%	Regulations drafted for review of new sources and modifications (A)	None	7 of 11 compliance schedules completed legal action planned on one source	Devel. of compliance schedule
REGION III					
Delaware	100%	Expansion of air pollution control agency's legal authority (A)	None	All sources in compliance, but 3 compl. sched. still to be approved; legal action taken against 5 sources; existing problem with 2 Fed. facilities	Air monitoring system update; SAROAD and NEDS computer programs

Table 27 continued

Region and state	Percent of 1975 SIP Manpower Requirement	**Legislation** D = deficiency A = accomplisned P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
District of Columbia	45%	None	None	Violation notices served to 40 intermittent violators of control regulation, but no enforcement action taken	Negotiation of compliance schedules
Maryland	95%	Strengthen NO_x contro requirements (P) Adoption of new sourc performance stnds.(P) Specifications for monitoring systems(P)	None	71 compliance schedules completed	Land use and transp. control strategy; Ambient trend monitoring and source monitoring systems.
Pennsylvani	50%	Expanded civil actions (A)	None	Backlog of variance requests (basis of compl. sched.) has hindered compliance schedule progress	Ambient trend monitoring and emission systems
Virginia	65%	Prompt action against open burning violation(A) Local governments control leaf burning via ordinances preempting state law rendering amendment ineffective (A)	None	3,536 registration forms received; 200 compliance schedules approved.	None requested.
W. Virgini	45%	Complex (indirect) source regulations(D)	None	Because of state request to EPA for delay in meeting primary NAAQS, compliance schedules have been lagging.	Compliance schedule development Data processing; Need assistance in establishing laboratory quality assurance program.

Table 27 (con't.)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
REGION IV					
Alabama	65%	None	None	779 compliance schedules submitted.	Emission data to NEDS; Establishment of AQDHS and EMS; Transp. survey in AQCR's 4 and 5.
Florida	70%	None	None	478 compliance schedules submitted	Emission data to NEDS; Compliance schedule negotiations; Diffusion modeling of Tampa area.
Georgia	70%	State operated permit system (A)	None	Revision of compliance schedules submitted for 41 sources.	Data processing support (meteorology and math modeling); Emission data to NEDS.
Kentucky	55%	None	None	Compliance schedules from majority of sources (400)	Emission data to NEDS; Strategy verification in Louisville; Source test training provided to Louisville agency.
Mississippi	55%	None	None	650 compliance schedules submitted.	Emission data to NEDS; Met. data and diffusion models; Establishment of EMS program
N. Carolina	65%	Permit regulation (A) Authority to control complex (indirect) sources (A)	None	1200 compliance schedules approved, all significant sources.	Emission data to NEDS; Met. data and diffusion models.

Table 27 (con't)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
S. Carolina	60%	None	None	34 compliance schedules submitted.	EMS and AQDM programs; Diffusion modeling guidance; Emission data to NEDS
Tennessee	80%	Exemption for sawmills revoked (A)	None	83 compliance schedules submitted	Emission data to NEDS
REGION V					
Illinois	90%	SO_2 emission limitations and leaf burning (P) (Note: SO_2 law would postpone enforcement of existing emission limitations until one year demonstration of stack gas cleaning technology on a state located utility.)	None	39 compliance schedules submitted. EPA has proposed increments of progress regulations for corn wet milling, coke ovens, and fuel combution sources.	Consultation by NERC re: several enforcement cases.
Indiana	55%	Construction permit system adopted by state air pollution control board. (A)	None	Inadequate state report, Region V invoking Sect. 114 of the Clean Air Act.	Secondary SO_2 and particulate standards, development in AQCR's 67 and 80.
Michigan	70%	Surveillance Fee System (A)	None	Inadequate compliance schedules for SO_2 from fuel combustion sources.	Indirect source assistance requested.
Minnesota	50%	N/A	None	Obtaining compliance schedule on reasonable schedule.	Indirect sources assistance anticipated.

Table 27 (con't)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
Ohio	55%	N/A	None	All emission regulations effective. State now negotiating variances.	Secondary standard for particulate in AQCR's 174, 178, and 181; Compliance schedules for SO_2 emissions from power plants;
Wisconsin	60%	Regulations for emission fees (A) Add'l. funding for Milwaukee Co. Dept. of APC (A)	Requested for hazardous pollutants.	Obtaining compliance schedules to replace proposed categorical schedules according to 6/15/73 Federal Register.	Simulation model for highway siting.
Region VI					
Texas	69%	Revised regulations on volatile organic compounds (A)	Requested for NSPS and NESHAPS	5220 point sources in compliance; 720 sources have acceptable schedules; no sources are exempted; 60 schedules to be negotiated	Emission inventory update; transportation controls for 6 AQCRs
Louisiana	50%	None	None	167 point sources in compliance; 190 sources have acceptable schedules; 303 schedules to be negotiated	Emission inventory update
New Mexico	78%	Air Quality Control Act ammended to include permit system(A), creation of criminal petty misdemeanor penalty for violation of any regulation(A), and 18 month moratorium on the requirement that State agencies must write Enviromental Impact Statements(A)	None	No compliance schedules submitted by State; EPA promulgated a regulation for increments of progress	Emission inventory update; fugitive dust emission study; ambient trend monitoring of SO_2 in AQCR 14 to validate NOAA model

Table 27 continued

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
Oklahoma	77%	Regulations on hydrogen sulfide submitted to public hearing(P); regulations for odors and hazardous materials (P)	Intend to request for NSPS and NESHAPS	333 point sources in compliance; 50 sources have acceptable schedules; 85 sources exempted; 32 scheduled to be negotiated	Emission inventory update
Arkansas	62%	None	None	No point sources in compliance; 80 point sources have acceptable schedules, 100 point sources exempted; 220 sources to be negotiated	Emission inventory to NEDS
REGION VII					
Iowa	70%	None	None	All required compliance schedules submitted.	Emission data update.
Kansas	80%	Emission data exempted from confidentiality clause (A)	None	65 compliance schedule submitted. 1000 sources determined in compliance.	Emission data to NEDS: Kansas City traffic control study; Survey of fugitive dust sources.
Missouri	55% of FY '74 req.	None	None	Compliance schedules not complete for all sources in violation.	Kansas City odor survey; Kansas City traffic control study; St. Louis traffic control study.
Nebraska	55%	Repealed the "Wyoming Clause" permitting the Dept. of Environmental Control to control air quality in the clean air areas of the State.	None	Concentrated in AQCR's 145 and 85 having regulations.	Emission data to NEDS; Fugitive dust survey.

Table 27 (con't.)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
REGION VIII					
Colorado	85%	Public release of emission data (A). Construction reviews(A) Emergency episode authority (A)	Monitoring of emissions (State now has authority)	20 compliance schedules submitted; other sources in compliance, thus, no schedule.	Transportation control plan; Emission data update; Development of a secondary particulate standard implementation plan.
Montana	80%	N/A	None	Cannot be judged until receipt of semi-annual report.	N/A
N. Dakota	55%	N/A	None	24 compliance schedules submitted. One point source achieved compliance, and 2 point sources ceased operation.	Indirect source regulation; Emission data update.
S. Dakota	25%	Fuel content can be specified, if necessary, to achieve NAAQS (A) May prevent construction or modification of source (A) Prohibits tampering with motor vehicle control devices (A) Emission data available to public (A) Penalties raised to $5,000/day (A)	Collect, correlate, and release emissions data.	Public hearings yet to be held for 1200 applications for permits to operate, variance requests, and compliance schedules.	Emission data update.

Table 27 (con't.)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
Utah	75%	Annual inspection of motor vehicle control devices (A) Public release of data submitted by owner/operator of air pollution source (A) Authority to require installation, maint., & use of emission monitoring devices(A) State sales tax exemption for installation of air pollution control facilities	None	Relying on voluntary compliance/negotiation.	Transp. control streategies; Emission data updated Emission grid network for urban portion of AQCR 220.
Wyoming	45%	Environmental Quality Act (A) Authority to implement new source review programs (direct sources only) (A)	None	Cease and desist order issued to a major source.	Guidelines for newly enacted legislation; Emission data update.
REGION IX					
American Samoa	--	Regulations necessary to fulfill SIP requirements (A)	None	All sources are in compliance, thus schedules not required.	Monitoring equipment (1 hi-vol)
Arizona	85%	Public inspection of emission reports (A)	None	All compliance schedules submitted.	Mobile emissions inventory; Example compliance schedule formats.

Table 27 (con't.)

Region and state	Percent of 1975 SIP Manpower Requirement	Legislation D = deficiency A = accomplished P = proposed	Delegation of EPA authority	Enforcement activities	Federal assistance to State/local agencies
California	90%	$4.6M to local agencies administered by ARB(A) Est. need for statewide air pollution control element to be integrated with statewide planning process (A)	None	No compliance schedules yet submitted (officially) to EPA; several open burning dumps closed.	Develop. of air quality and emission data systems; Advice in ambient trend monitoring.
Guam	100%	Guam Environmental Protection Agency (GEPA) effective 3/7/73 (A)	None	All compliance schedules submitted.	Revision of SIP: Development of consolidated grant application.
Hawaii	70%	None	None	Status of all major sources reviewed and compliance schedules developed is applicable.	Emission data to NEDS; Updated consolidated grants; Revised program objectives.
Nevada	55%	Authority to review and prevent construction of indirect sources (A) Reorganization of Environmental Control Commission(A)	None	17 compliance schedules submitted. Variances for open burning granted to 6 counties for 30 cities.	Emission data to NEDS; Transp. plan for Las Vegas.

NOTE: No reports received from EPA Region X.

Part Four Enforcement of State Implementation Plans

Since the initial approval of most portions of state implementation plans on May 31, 1972, air enforcement activities of the agency have been initiated. These activities cover three broad areas including:

1. Establishment of reasonable compliance schedules for all major sources.
2. Keeping sources in compliance or on compliance schedules, and
3. The development of a source surveillance program.

Each of these activities will be covered in this report.

A. SIP Requirements and Enforcement Strategies

Four types of requirements may be included in SIPs: Federally promulgated requirements; SIP requirements immediately effective; SIP requirements which become effective through January 1974; and SIP requirements effective after January 1974. Different kinds of enforcement programs have to be designed for each of these categories of SIP requirements.

As a part of the analysis of the four classes of regulatory requirements, each Regional Office was asked by the Office of Enforcement and General Counsel (OEGC) to collect and consider all available information concerning specific sources or source categories subject to each such class of regulation, the extent of noncompliance, and the feasibility of compliance. The enforcement options available for each requirement were examined and presented in the context of this information. The Regional Offices submitted a strategy to OEGC on April 30, 1973, to handle SIP requirements effective after January 1974. These strategies were used to develop EPA approval/disapproval notices and proposed compliance schedules on June 15, 1973. These schedules were promulgated on August 20, 1973. An analysis of the present situation on these compliance schedules is presented in Section B of this report.

The Regional Offices submitted enforcement strategies to OEGC for each state on or about May 31, 1973, to handle immediately effective SIP requirements. These strategies have been reviewed and discussed in trips to each Regional Office during July 1973 by DSSE. A summary report of these trips was made to each Region during early August 1973. An analysis of the present status of enforcement of this type of SIP requirement is presented in part B(2) of this section.

In developing an enforcement strategy, for presently effective requirements, the Regional Offices establish priorities for EPA enforcement. In general, it is the policy of the Agency that priority be given to sources in AQCRs classified Priority I and to larger sources.

The enforcement strategy developed is not intended to be static. Initial information and assumptions may prove to be in error, and strategies will need to be updated through quarterly reports to OEGC that record progress toward achievement of the overall goal of full compliance with SIP requirements and redefine the most effective EPA enforcement action strategy for the next quarter.

B. Establishment of Compliance Schedules

EPA regulations (40 CFR §51.15) allowed states until February 15, 1973, to submit compliance schedules establishing increments of progress where such increments were required (i.e., for regulations with a final compliance date after January 31, 1974). Regulations establishing the final emission limitations and compliance dates were required to be contained in the plan submitted by January 30, 1972; only the incremental steps (contract, start construction, finish construction, etc.) were covered by the deferred submission date. The increments of progress could be contained in a schedule particularized for an individual source, in a categorical schedule, or in the emission control regulation itself. Where the emission control regulation contained acceptable increments (approximately 5,000 facilities are included in such requirements), no submission of individual schedules pursuant to §51.15(a)(2) was required. Section B(1) presents the status of §51.15 schedules.

Although increments of progress are not necessary for sources affected by requirements with an effective date prior to January 1974, it is still necessary for the states or EPA to establish reasonable compliance schedules for such sources if the presently effective compliance date is unreasonable. Section B(2) presents status of and alternatives for handling development of schedules for such requirements.

(1) Section 51.15 Schedules

The Administrator determined on May 31, 1972, (37 F.R. 10842), that a number of states did not have a procedure for obtaining legally enforceable increments of progress in compliance schedules for submission to the Administrator by February 15, 1973. In these cases, the State's implementation plan was disapproved on this basis and subsequently, on September 22, 1972, (37 F.R. 19829), October 28, 1972 (37 F.R. 23085), and May 14, 1973, (37 F.R. 16896), the Administrator promulgated compliance schedules for most of these states.

Despite substantial efforts by the EPA Regional Offices, few states officially submitted any schedules to fulfill the requirements of §51.15. Of the 20 states with regulations with final compliance dates after January 31, 1974, only 6 officially submitted any schedules in time to be dealt with by June 15.

Where states failed to fulfill their responsibilities in submission of compliance schedules, EPA was required to propose schedules to substitute for those not submitted by the state or not approvable by EPA. The approvals and disapprovals of state schedules were required by June 15, 1973, by analogy to the four-month review period for original plans specified in the Clean Air Act. Adoption of final regulations was completed on these schedules in August 1973. Some 10,000 facilities have now been placed on a reasonable schedule. Most of these facilities are subject to a categorical-type schedule, that is, a schedule tailored to a class of sources such as asphalt batch plants.

(2) Presently Effective SIP Requirements

If immediate compliance is reasonable, as in the case of fuel switching (if the fuel is available), or prohibitions on open burning, an effective enforcement program consists simply in the initiation of enforcement actions against selected violators. An example of such enforcement actions is the open burning violations in Rhode Island against which EPA has taken action.

Where presently effective regulations have been recently enacted, the requirement to comply immediately may be wholly unreasonable. Instances of noncompliance may be widespread whether or not the state is effectively enforcing the regulation. A program which consists of specific enforcement actions against sources, culminating in an order which establishes a schedule tailored to the particular source proceeded against, will be adequate for major sources if the number of sources in violation are not numerous. An example of this type of action is the U.S. Steel case in Gary, Indiana, summarized in Table 28.

The Regional Offices have estimated that some 10,000 point source facilities are subject to presently effective requirements in SIPs and need to be placed on a reasonable compliance schedule.

Figure 9 illustrates the timetable over which this task is expected to be completed. Where sources are numerous, various methods of establishing realistic schedules for groups or classes of sources must be considered, including the following:

1. Encourage the state to adopt acceptable plan revisions or to issue general variances which establish reasonable compliance dates for groups or classes of sources. Enforce these revised schedules aggressively. Submission of these schedules as revisions is not subject to any statutory timetable. Federal Register packages covering substantial numbers of such schedules (approximately 3,000 facilities) are expected to be submitted by the Regional Offices over the next few months. An additional 2,000 facilities are expected to be handled by the states by the end of calendar year 1973.

2. Issue notices of violation to a large number of similar sources. Enclose with the notice a schedule developed for the entire source category. Explain to the source in the notice of violation that the enclosed schedule is believed to be a reasonable schedule for all sources in the class and that, if the source accepts the schedule, an abatement order embodying the schedule will be issued to the source. It should be made clear that, if the source requests a conference or rejects the schedule, EPA may determine that a more expeditious schedule is practicable or reasonable. This approach will lighten the Regional Office workload, as compared to negotiation of individual schedules for each source, and may result in more expeditious abatement programs for the class as a whole.

It is expected that a substantial number of facilities will have to be handled in this manner.

3. Development for a large class of sources a realistic schedule which includes a series of increments of progress and announce that it will be EPA's policy to prosecute sources which do not initiate and complete abatement programs in accordance with the schedule. This approach will be effective only if most sources in the class are informed of the schedule and of EPA policy and if an extremely aggressive program of litigation is promptly mounted against sources which fail to initiate abatement action voluntarily in accordance with the schedule. Sources which are proceeded against should be put under orders requiring more expeditious abatement than is required under the schedule for the class, where more expeditious abatement is technically feasible, and penalties should be recovered. Initial cases will be carefully selected to make success in litigation likely, including recovery of penalties. This approach will be used only to the extent that option is not successful.

C. Keeping Sources in Compliance or on Schedules

A major activity of air enforcement after the establishment of reasonable compliance schedules will be to keep such source on schedule and, upon reaching final compliance, to ensure that such sources remain in compliance through proper operation and maintenance of the facility. An example of such an action is the Delmarva case summarized in Table 28. In this case the affected source had reached its final compliance date which was wholly reasonable. Therefore, an order to comply immediately was issued. It is expected that such action will be accelerated as increments of progress in approved schedules and enforcement orders are reached and as sources are scheduled to achieve final compliance. The next semiannual progress report is expected to show a significant increase in such actions. The following sections explain how OEGC expects to obtain the necessary information on sources in order to determine priority for the taking of air enforcement actions.

D. Source Surveillance and Intelligence

A program of source surveillance to determine sources and their compliance status is being initiated in each Regional Office. This program will first concentrate on the development of adequate source information to use to follow state progress in enforcing their SIPs.

OEGC has developed a computer system, now operational, known as the Compliance Data System (CDS). The CDS is not a data system, as such, but an enforcement management system. It is designed to assist regional programs in performing the following activities:

1. Develop and revise (State) enforcement strategies by providing statistical breakdowns of state enforcement progress and obtaining source listings by compliance status, industrial category, emission potential category, geographic location, and/or pollutant.

2. Ease the state burden of reporting enforcement progress semiannually through the use of simple questionnaires, tailored to the actions the states should have monitored over the preceding six-month period.

3. Provide a means for managing numerous enforcement actions by furnishing summaries of EPA-to-source interactions, writing form letters, tracking increments of progress or other dates pertaining to enforcement, assisting in assigning work loads such as inspection and source observations to personnel, and producing summaries of future and overdue work actions.

4. A summary of state enforcement actions that result in civil or criminal penalties.

A summary of EPA enforcement activities including inspections, source tests, notices of violation, abatement orders and civil/criminal actions. These summaries are being designed to reflect in a meaningful way both the state's and EPA's efforts toward implementing the requirements of the state air implementation plans.

Table 28

SUMMARY OF EPA AIR ENFORCEMENT ACTIONS

MAY 1972 - AUGUST 1973

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OR STATUS
Allied Chemical Corporation Sulfuric Acid Plant	Claymont, Delaware Region III	Secure compliance with Delaware SIP limiting SO_2 concentrations and mass emission rates.	**Notice of violation issued on May 24, 1972. Order to comply issued on July 20, 1972.**	**Bimonthly progress reports to be submitted commencing October 10, 1972. Information submitted to EPA on construction of an emission control facility to comply with the plan. A construction schedule with increments of progress has been established by EPA.**
Delmarva Power & Light Company Steam Generator	Delaware City, Delaware Region III	Secure compliance with Delaware SIP requiring the use of fuel containing not in excess of 3.5% sulfur.	Notice of violation issued on March 6, 1972. Order to comply issued on April 17, 1972.	At the conclusion of litigation instituted by Getty Oil Company for a court order restraining enforcement of the fuel sulfur content regulation the order to comply was upheld. (The interest of Getty Oil Co. in this matter arises from a contractual arrangement between Delmarva Power & Light Co. and Getty Oil Company under which Getty provides Delmarva petroleum coke for fuel in exchange for electricity.) Getty Oil Co. (Eastern Operations) vs. Ruckelshaus (342 F. Supp. 1006; 467 F. 2d. 349; cert. den., ____ U.S. ____, Jan. 15, 1973). Source is in compliance.
City of Woonsocket Open Burning	Woonsocket, Rhode Island Region I	Open burning at municipal refuse disposal facility in violation of Rhode Island regulations.	Notice of violation issued on February 7, 1973. Order issued July 7, 1973.	On March 7, 1973, a conference was held with representatives of the city, who agreed to cease all open burning of debris except that generated by HUD. Region I is presently attempting informally to assist HUD in the resolution of its disposal problems.
City of Newport Open Burning	Newport, Rhode Island Region I	Secure compliance with Rhode Island SIP prohibiting open burning at public refuse disposal sites and prohibiting the emission of harmful contaminants.	Notice of violation issued on October 13, 1972. Order to comply issued on Jan. 11, 1973.	**The Newport refuse disposal site is under surveillance, and pursuant to Section 113, judicial proceedings are authorized if further violations of the State implementation plan occur. Presently in compliance.**

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OR STATUS
City of Middletown Open Burning	Middletown, Rhode Island Region I	Secure compliance with Rhode Island SIP prohibiting open burning at public refuse disposal sites and prohibiting the emission of harmful contaminants.	Notice of violation issued on Oct. 13, 1972. Conference held between EPA and Middletown officials on Nov. 6, 1972.	In compliance presently, but order is pending.
Texaco Inc.	Massachusetts Region I	Selling fuel with higher sulfur content than permitted under Massachusetts regulations.	Notice of violation issued on Feb. 1, 1973.	On February 12, 1973, pursuant to a Section 114 letter, Texaco met with Region I personnel and provided information with respect to fuels availability and demand. Since this meeting Texaco has ceased its violation.
American Barrel Company Drum Reclamation Furnace & Incinerator	Massachusetts Region I	Operation of drum reclamation furnace violating Mass. regulations regarding open burning, visible emissions and general air pollution.	Notice of violation issued on March 15, 1973.	Concurrence on order issued August 8, 1973.
North East Utilities Service Steam Generator	Massachusetts Region I	Burning fuel with a higher than permitted under State regulations.	Notice of violation issued on March 16, 1973.	In compliance.
U. S. Steel Corp. Gary Works and Universal Atlas Cement, Buffington Harbor Plant Steel Mill, Cement Plant	Gary, Indiana Region V	Operation of a steel mill with cement production facilities in violation of Indiana's regulations regarding visible emissions, combustion for industrial heating and process operations.	Notice of violation issued on April 18, 1973. Order issued June 22, 1973.	On May 16, 1973, a conference was held with the representatives of U.S. Steel, the city of Gary and the State of Indiana. An order was issued by June 22, 1973. U.S. Steel requested U.S. District Court, Hammond, Ind., for a stay of the order and declaratory judgements to void order. EPA counterclaimed to enforce the terms of the order (first increment past) on August 15, 1973.

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OR STATUS
Wabash Smelting Corporation Secondary aluminum plant	Indiana Region V	Violation of Indiana regulations for visible emissions and process operations.	Notice of violation issued on March 28, 1973: Order issued on May 30, 1973.	Presently in compliance with terms of the order.
H.N. Hartwell and Son, Inc.	Massachusetts Region I	Selling fuel with a higher sulfur content than permitted under Mass. regulations.	Notice of violation issued on March 16, 1973.	Presently in compliance.
Union Petroleum Corporation	Massachusetts Region I	Selling fuel with a higher sulfur content than permitted under Mass. regulations.	Notice of violation issued on March 16, 1973.	Presently in compliance.
Central Electric Power Cooperative	Jefferson City, Missouri Region VII	Power company refused to submit information requested in Section 114 letter.	Administrative order issued on May 2, 1973.	All the information required in the administrative order has been provided.
Hercules, Inc. - Missouri Chemical Works	Louisiana Missouri Region VII	Operation of Plant in violation of Missouri regulations regarding process operations.	Notice of violation issued on May 16, 1973.	Awaiting conference.
Asarco Primary Lead Smelter	Glover, Missouri Region VII	Violation of Missouri SO_2 regulations.	Notice of violation issued July 2, 1973.	Conference held July 24, 1973, order pending.

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OR STATUS
St. Joe Minerals Corporation Primary Lead Smelter	Herculaneum Missouri Region VII	Violation of Missouri SO_2 regulations.	Notice of violation issued June 2, 1973.	
Centropolis Crusher Inc.	Kansas City, Missouri Region VII	Refused to submit information required in Section 114 letter.	Order issued on June 6, 1973.	
City of Lawrence Open Burning	Lawrence, Mass. Region I	Open burning	Notice of violation issued on June 6, 1973.	Conference held.
So. California Edison Mohave Power Plant	Nevada Region IX	Violation of State visible emission regulation and SO_2 emission limits.	Notice of violation issued July 25, 1973.	Conference held August 14, 1973. Order is pending.
City of Bristol Open Burning	Bristol, Rhode Island Region I	Open burning at municipal refuse disposal facility in violation of Rhode Island regulations.	Notice of violation issued on April 26, 1973.	Conference held. Issuance of order is pending.
Kaibab Industries Wood waste burners	Payson, Arizona Region IX	Violation of Arizona visible emission regulations.	Notice of violation issued July 24, 1973.	Conference pending.
Western Pine Ind. Wood waste burners	Snowflake, Arizona Region IX	Violation of Arizona visible emission regulation.	Notice of violation issued July 24, 1973.	Conference pending.

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OF STATUS
Western Moulding Co., Inc. Wood waste burners	Snowflake, Arizona Region IX	Violation of Arizona visible emission regulation.	Notice of violation issued July 24, 1973.	Conference pending.
Wilfret Brothers Realty Trust Incinerator	Arlington, Mass. Region I	Violation of Mass. regulation on incinerator.	Notice of violation issued July 2, 1973.	Request for concurrence August 2, 1973 on issuance of an order.
Penn Central Transportation Company Passenger and freight terminals	Massachusetts Region I	Transfer of cement products creating visible emissions problem and trucks idling contrary to require- of Mass. SIP.	Notice of violation issued July 2, 1973.	
Independent Stave Co. Inc. Boilers, Cyclones, Teepee Burner, Incinerator	Lebanon, Missouri Region VII	Violation of Missouri particulate matter regulation.	Notice of violation issued on July 9, 1973.	Concurrence granted July 2, 1973.

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OF STATUS
Bethlehem Steel Corp. Steel Mill	Burns Harbor Plant Chesterfield, Ind. Region V	Violation of Indiana visible emission and particulate emissions (process wt.) regulations.	Notice of violation issued on July 11, 1973.	
Kaiser Steel Corp.	Fontana, Calif. Region IX	Violation of Calif. visible emission and SO_2 regulations (H_2S standard).	Notice of violation issued August 7, 1973.	
8 wood waste Burners	Mendocino and Northern Sonoma County, Calif. Region IX	Violation of Calif. visible emissions regulations.	Notice of violation issued August 15, 1973.	
Seaboard Foundry, Inc. Gray Iron Foundry	Johnston, R. I. Region I	Violation of R. I. visible emissions and particulate emissions (process wt.) regulations.	Notice of violation issued August 1, 1973.	
Inland Steel Co. Integrated Steel Mill	East Chicago, Ind. Region V	Violation of Indiana viaible emissions, combustion for industrial heating and process operations.	Notice of violation issued July 18, 1973.	
Youngstown Sheet and Tube Co. Integrated Steel Mill	East Chicago, Ind. Region C	Violation of Indiana visible emissions, combustion for industrial heating and process operations.	Notice of violation issued July 18, 1973.	

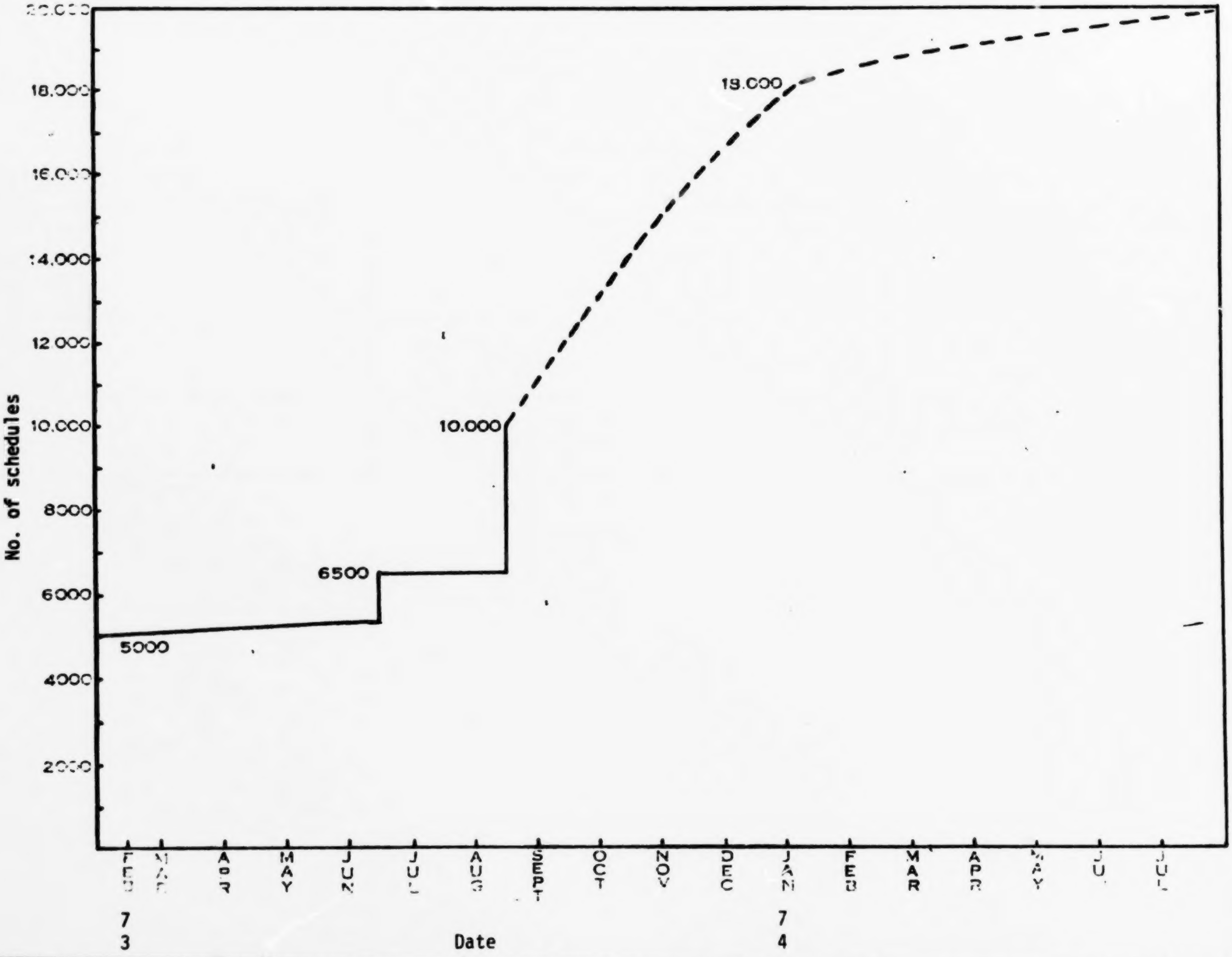
Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OF STATUS
Missouri Power & Light Co. Power Plant	Jefferson City, Mo. Region VII	Refused to submit information required in Section 114 letter.	Administrative order issued August 1, 1973.	
Controlled Demolition, Inc. Vince Baum Wrecking Co. Demolition Co.	Kansas City, Mo. Region VII	Failed to notify EPA prior to demolition of building containing friable asbestos as required in NESHAPS regulations.	Criminal action referred to U.S. Attorney August 16, 1973.	
Roberts Construction Co. Limestone Quarrying and Crushing	Sundance, Wyoming. Region VII	Violation of ambient air standard for total suspended particulates as provided in Wyoming SIP.	Notice of violation issued August 16, 1973.	
Columbia Water & Light Dept. Boilers	Columbia, Mo. Region VII	Has not tested boilers 6 & 7 within 2 months extension given by R.O. as required in Section 114 letter.	Notices of violation; Administrative order issued to obtain §114 information	
J. Edward Moran Generating Stat Cty. of Burlington Electric Light Dept. Boilers	Burlington, Vt. Region I	Violation of Vt. particulate matter and visible emissions regulations.	Notice of violation issued August 14, 1973.	

Table 28 (con't)

COMPANY TYPE OF SOURCE	LOCATION	POLLUTION PROBLEM	TYPE OF ACTION	RESULTS OF STATUS
Atlantic-Richfield Corp. Oil refinery	East Chicago, Ind. Region V	Violation of Ind. SO_2 regulation. (APC-13)	Notice of violation issued August 10, 1973.	
Mobil Oil Corp. Oil refinery	East Chicago, Ind. Region V	Violation of Ind. SO_2 (APC-13) and visible emission (APC-3) regulations.	Notice of violation issued August 10, 1973.	
American Oil Co. Oil Refinery	Whiting, Ind. Region V	Violation of Indiana SO_2 (APC-13) and visible emission (APC-3) regulations.	Notice of violation issued August 10, 1973.	

Figure 9. Projected Compliance Schedule Development



Part Five | Agency Resources

A. Operating Funds and Type of Assistance

Since the passage of the Clean Air Act Amendments in 1970, the primary purpose of the grant assistance, special contract support and the assignment of personnel has been to aid State and local agencies in developing and executing state implementation plans. In 1973, the grant awards will approximate $46 million, assignment of personnel $1.7 million, and special contract work and demonstration grants $3 million. The support shown in Table 29 does not include other assistance provided to the states by EPA such as training and other technical support activities.

B. Agency Funds Compared to SIP Estimates

The funds available to State and local control agencies were estimated for the period July 1972 to June 30, 1973 as shown in Table 30. These estimates indicate that available funds were approximately $113.6 million or 99% of the anticipated national 1973 SIP needs. By 1975, an estimated $144 million will be required to meet 1975 SIP program needs. Approximately one-fourth of the States are spending less than 70% of the SIP estimates for FY '73. Some of the more industrialized states in this group include Rhode Island, West Virginia, Mississippi, Indiana, Tennessee, and Louisiana. Eighteen states have funds available that exceed their estimates in the SIP. Since these states, with the exception of California, have not yet reached their manpower resource requirements, the original SIP fund estimates made by the states probably did not anticipate certain costs associated with air pollution or did not include the local agency contribution pertaining to operating costs and resources. Therefore, the data on funding tend to indicate that the resources actually required to conduct effective control programs may be more than estimated by at least some of the states. In early 1970, many states were in the early stages of program development and the resources required to fulfill the plans were projected on a two-,four-, and six-year basis. It is expected that some states will need to reassess their current resource projections to make them consistent with new programs, including land use and transportation controls, which will tend to increase resource needs in terms of funding as well as manpower. In fact, the states of Arizona, Nevada, and California already have been requested by the EPA Regional Office to update the resource estimates based on their current level of program operation. EPA is now assessing the additional resource requirements of new SIP requirements, e.g., transportation controls, indirect sources and significant deterioration. Results of the studies are expected in early CY-74.

C. Manpower Resources Compared to SIP Estimates

State and local air pollution control agency manpower information was provided by the Regional Offices from the air program grant applications, and through telephone communication with certain State and local agencies. While such data collection activities are relatively accurate, they are subject to error and should not be considered to be as reliable as controlled and validated manpower surveys. However, the estimates are sufficient to demonstrate manpower trends and provide a good indication of existing manpower gaps. Manpower estimates for FY '73 are provided in Table 31. It should be noted in Table 31 that, in some cases, the equivalent man-years exceed the number of budgeted positions because other departments within the State government contributed part-time assistance to the air pollution control agency.

The State Implementation Plan (SIP) manpower estimates for both 1973 and 1975 indicate the effort expected to be necessary to implement each state plan. The 1975 manpower resources estimated indicate approximately 8600 man-years are needed to accomplish state implementation plans. These estimates may be low in many cases where revisions, such as modified transportation control strategies, have become necessary.

Table 29 - STATE AND LOCAL OPERATING FUNDS BY SOURCE OF FUNDS AND TYPE OF ASSISTANCE (FY 1973)

EPA Region and State	Control Program Funds $1000 Federal grants[a]	Control Program Funds $1000 Non-fed.	Special contract support (BOA)[b] funds $1000	Demonstration grants $1000	EPA employees assigned to Control Agencies No.[c]	EPA employees assigned to Control Agencies equiv. value $1000[d]	Total All support
REGION I							
Connecticut	1355.8	820.9	74.0	46.0	1	4.4	2301.1
Maine	192.0	92.7	8.2		2	7.9	300.8
Massachusetts	1312.9	600.9	48.1		3	1.5	1963.4
New Hampshire	185.4	78.3	8.3		1	13.6	285.6
Rhode Island	133.9	89.1			1	0.0	223.0
Vermont	154.4	97.2	18.2		1	2.6	272.4
Subtotal	3334.4	1779.1	156.8	46.0	9	30.0	5346.3
REGION II							
New Jersey	2262.7	1489.8	15.0		2	0.0	3767.5
New York	4273.0	10492.4	85.4	215.0	3	10.0	15075.8
Puerto Rico	419.3	342.2			1	7.5	769.0
Virgin Islands	100.0	50.3	6.0		1	0.0	156.3
Subtotal	7055.0	12374.7	106.4	215.0	7	17.5	19768.6

Table 29 (con't)

EPA Region and State	Control Program Funds $1000 Federal grants[a]	Control Program Funds $1000 Non-fed.	Special contract support (BOA)[b] funds $1000	Demonstration grants $1000	EPA employees assigned to Control Agencies equiv. No.[c]	EPA employees assigned to Control Agencies value $1000[d]	Total All support
REGION III							
Delaware	193.3	179.7	16.7		3	14.9	404.6
Dist. of Columbia	334.1	148.2	20.7		2	5.4	508.4
Maryland	1365.8	1376.3	45.5		6	26.4	2814.0
Pennsylvania	2545.5	1943.3	65.6		33	185.7	4740.2
Virginia	991.8	676.0	38.4		0	0.8	1707.0
W. Virginia	507.0	436.7	7.9		2	20.7	972.3
Subtotal	5937.5	4760.3	194.8		46	253.9	11146.5
REGION IV							
Alabama	714.4	423.3	74.1		6	24.6	1236.4
Florida	1045.6	969.7	55.6		11	7.7	2078.6
Georgia	626.5	367.1	40.0		2	12.4	1046.0
Kentucky	656.6	786.8	45.6		9	17.7	1506.7
Mississippi	419.5	163.8	31.1		8	38.7	653.1
No. Carolina	1188.6	613.6	39.5		4	13.5	1855.2
So. Carolina	430.3	494.4	54.5		3	14.3	993.5
Tennessee	927.2	832.5	37.6		2	4.7	1802.0
Subtotal	6008.7	4651.2	378.0		45	133.6	11171.5

Table 29 (con't)

EPA Region and State	Control Program Funds $1000		Special contract support (BOA)[b] funds $1000	Demonstration grants $1000	EPA employees assigned to Control Agencies equiv.		Total All support
	Federal grant[a]	Non-fed.			No.[c]	value $1000[d]	
REGION V							
Illinois	2897.8	4070.0	39.4		9	7.6	7014.8
Indiana	778.9	785.2	7.0		9	39.1	1610.2
Michigan	1999.7	1476.8	7.0		1	1.9	3485.4
Minnesota	661.2	442.9	46.6		3	11.7	1162.4
Ohio	2414.9	3569.3	46.1		7	41.6	6071.9
Wisconsin	840.4	626.0	7.0		4	5.2	1478.6
Subtotal	9592.9	10970.2	153.1		33	107.1	20823.3
REGION VI							
Arkansas	201.8	120.4	16.5		1	2.8	341.5
Louisiana	350.0	229.8	16.5		2	6.1	602.4
New Mexico	482.5	225.2	47.3		0	0.0	755.0
Oklahoma	416.0	297.4	18.5		3	23.0	754.9
Texas	2923.3	3004.2	155.0		1	5.3	6087.8
Subtotal	4373.6	3877.0	253.8		7	37.2	8541.6

Table 29 (con't)

EPA Region and State	Control Program Funds $1000		Special contract support (BOA)[b] funds $1000	Demonstration grants $1000	EPA employees assigned to Control Agencies equiv. value		Total All support
	Federal grant[a]	Non-fed.			No.[c]	$1000[d]	
REGION VII							
Iowa	645.3	331.9	18.0		0	0.0	995.2
Kansas	596.3	405.7	21.5		5	32.1	1055.6
Missouri	1145.9	1070.0	38.0		3	26.8	2280.7
Nebraska	247.1	107.8	24.5		2	10.2	389.6
Subtotal	2634.6	1915.4	102.0		10	69.1	4721.1
REGION VIII							
Colorado	817.3	641.8	86.9		3	0.0	1546.0
Montana	266.6	154.9	136.1		4	9.7	567.3
No. Dakota	45.0	45.0	10.0		1	0.0	100.0
So. Dakota	32.0	10.7	10.0		4	28.6	81.3
Utah	160.0	145.1	117.6		2	6.0	428.7
Wyoming	68.1	32.0	10.0		2	15.3	125.4
Subtotal	1389.0	1029.5	370.6		16	59.6	2848.7

Table 29 (con't)

EPA Region and State	Control Program Funds $1000 Federal grant[a]	Non-fed.	Special contract support (BOA)[b] funds $1000	Demonstration grants $1000	EPA employees assigned to Control Agencies equiv. value No.[c]	$1000[d]	Total All support
REGION IX							
Arizona	377.0	557.5	262.7		0	0.0	1196.7
California	3761.3	18210.9	232.9		2	9.9	22215.0
Hawaii	175.4	234.0	7.5		4	8.6	425.5
Nevada	247.1	157.0	84.0		3	13.2	501.3
Guam	54.8	20.1			1	14.9	89.8
Subtotal	4615.6	19179.5	587.1		10	46.6	24428.8
REGION X							
Alaska	139.6	168.2	40.0		2	16.4	364.2
Idaho	108.2	177.7	85.3		3	15.8	387.0
Oregon	553.7	961.5	30.0		7	43.3	1588.5
Washington	1084.5	1306.4	42.2		7	45.6	2478.7
Subtotal	1886.0	2613.8	197.5		19	121.1	4818.4
Grand Total	46,827.3	63,150.7	2500.1	261.0	202	875.7	113,614.8
	109,978.0						

[a] Actual grant awards made during FY '73; values may include carryover funding from previous fiscal years.

[b] Basic Ordering Agreement (BOA) provides contractual assistance to states for collection of data in direct support of implementation plan development and revision. Additional funds approximating $500,000 of special contract support have been provided to collect state and local data in 1973 for the EPA, OAQPS, National Emission Data System. BOA support awarded to each state is estimated because BOA projects are generally conducted on a multi-state basis.

[c] Includes "not chargeable" and "in lieu of cash" State Assignees.

[d] "Not chargeable State Assignee expenditures. ("In lieu of cash" assignee expenditures are part of Fed. grant column.)

Table 30 - COMPARISON OF AGENCY RESOURCES TO SIP ESTIMATES (FUNDS) $1000

1973 ESTIMATES

EPA Region and State	Federal Control Program Grant		Non-Federal Control Program Monies		Total Funds available		Requirements from SIP	SIP Minus avail. funds[a/]
	State	Local	State	Local	State	Local	Total	
REGION I								
Connecticut	1006.8	349.0	494.5	326.4	1501.3	675.4	2754.0	577.3
Maine	192.0	0	92.7	0	284.7	0	150.0	(134.7)
Massachusetts	566.2	746.7	223.2	377.7	789.4	1124.4	2143.0	229.2
N. Hampshire	185.4	0	78.3	0	263.7	0	284.0	20.3
Rhode Island	133.9	0	89.1	0	223.0	0	329.0	106.0
Vermont	154.4	0	97.2	0	251.6	0	167.0	(84.6)
REGION II								
New York	2515.0	1758.0	2600.0	7892.4	5115.0	9650.4	16245.0	1479.6
New Jersey	1913.3	349.4	1309.4	180.4	3222.7	529.8	4110.0	357.5
Puerto Rico	419.3	0	342.2	0	761.5	0	600.0	(161.5)
Virgin Islands	100.0	0	50.3	0	150.3	0	84.0	(66.3)

Table 30 (con't)

EPA Region and State	Federal Control Program Grant State	Federal Control Program Grant Local	Non-Federal Control Program Monies State	Non-Federal Control Program Monies Local	Total Funds available State	Total Funds available Local	Requirements from SIP Total	SIP Minus avail. funds
REGION III								
Delaware	193.3	0	179.7	0	373.0	0	367.0	(6.0)
D. of Columbia	234.1	100.0 b/	142.9	5.3	377.0	105.3	518.0	35.7
Maryland	605.6	760.2	657.0	719.3	1262.6	1479.5	3328.0	585.9
Pennsylvania	1100.0	1445.5	957.7	985.7	2057.7	2431.2	6336.0	1847.1
Virginia	832.5	159.3	460.0	216.0	1292.5	375.3	2040.0	372.2
West Virginia	497.0	10.0	422.4	14.3	919.4	24.3	1436.0	492.3
REGION IV								
Alabama	367.0	347.4	272.0	151.3	639.0	498.7	1215.0	77.3
Florida	700.0	345.6	592.3	377.4	1292.3	723.0	2535.0	519.7
Georgia	500.0	126.5	288.0	79.1	788.0	205.6	1490.0	496.4
Kentucky	492.7	163.9	554.9	231.9	1047.6	395.8	2355.0	911.6
Mississippi	419.5	0	163.8	0	583.3	0	1032.0	448.7
North Carolina	800.0	388.6	321.6	292.0	1121.6	680.6	2235.0	432.8
South Carolina	300.0	130.3	394.1	100.3	694.1	230.6	1369.0	444.3
Tennessee	500.0	427.2	476.0	356.5	976.0	783.7	2693.0	933.3

Table 30 (con't)

EPA Region and State	Federal Control Program Grant State	Federal Control Program Grant Local	Non-Federal Control Program Monies State	Non-Federal Control Program Monies Local	Total Funds available State	Total Funds available Local	Requirements from SIP Total	SIP Minus avail. funds
REGION V								
Illinois	1747.8	1150.0	1253.0	2817.0	3000.8	3967.0	5882.0	(1085.8)
Indiana	342.6	436.3	200.4	584.8	543.0	1021.1	2468.0	903.9
Michigan	832.7	1167.0	478.6	998.2	1311.3	2165.2	2727.0	(749.5)
Minnesota	429.1	232.1	236.5	206.4	665.6	438.5	1256.0	151.9
Ohio	404.9	2010.0	1805.0	1764.3	2209.9	3774.3	6129.0	144.8
Wisconsin	638.2	202.2	292.5	333.5	930.7	535.7	1443.0	(23.4)
REGION VI								
Arkansas	201.8	0	120.4	0	322.2	0	501.0	178.8
Louisiana	350.0	0	229.8	0	579.8	0	930.0	350.2
New Mexico	400.3	82.2	162.3	62.9	562.6	145.1	726.0	18.3
Oklahoma	230.6	185.4	115.3	182.1	345.9	367.5	1180.0	466.6
Texas	2156.6	766.7	2094.1	910.1	4250.7	1676.8	8955.0	3027.5
REGION VII								
Iowa	539.8	105.5	261.1	70.8	800.9	176.3	805.0	(172.2)
Kansas	411.5	184.8	315.5	90.2	727.0	275.0	713.0	(289.0)
Missouri	254.0	891.9	178.9	891.1	432.9	1783.0	2366.0	150.1
Nebraska	109.1	138.0	36.4	71.4	145.5	209.4	563.0	208.1

Table 30 (con't)

EPA Region and State	Federal Control Program Grant State	Federal Control Program Grant Local	Non-Federal Control Program Monies State	Non-Federal Control Program Monies Local	Total Funds available State	Total Funds available Local	Requirements from SIP Total	SIP Minus avail. funds
REGION VIII								
Colorado	457.0	360.3	454.6	187.2	911.6	547.5	1220.0	(239.1)
Montana	219.8	46.8	110.0	44.9	329.8	91.7	442.0	20.5
No. Dakota	45.0	0	45.0	0	90.0	0	107.0	17.0
So. Dakota	32.0	0	10.7	0	42.7	0	150.0	107.3
Utah	160.0	0	145.1	0	305.1	0	383.0	77.9
Wyoming	68.1	0	32.0	0	100.1	0	267.0	166.9
REGION IX								
Arizona	227.0	150.0	322.1	235.4	549.1	385.4	1470.0	535.5
California	1058.0	2703.3	7761.6	10449.3	8819.6	13152.6	13597.0	(8375.2)
Hawaii	175.4	0	234.0	0	409.4	0	317.0	(92.4)
Guam	54.8	0	20.1	0	74.9		70.0	(4.9)
Am. Samoa	0	0	0	0	0	0		
Nevada	44.8	202.3	23.1	133.9	67.9	336.2	633.0	228.9
REGION X								
Alaska	69.6	70.0	40.2	128.0	109.8	198.0	229.0	(78.8)
Idaho	108.2	0	177.7	0	285.9	0	275.0	(10.9)
Oregon	61.5	492.2	579.6	381.9	641.1	874.1	1411.0	(104.2)
Washington	345.0	739.5	621.5	684.9	966.5	1424.4	1820.0	(570.9)
GRAND TOTAL	26,903.2 46,827.3	19,924.1	29,616.4 63,150.7	33,534.3	56,519.6 109,978.0	53,458.4	114850.0	4872.0

a/ Parentheses indicate the available funds exceed the SIP stated needs.
b/ Metropolitan Washington Council of Governments (COG)

Table 31 - CONTROL AGENCY SUPPORT
ESTIMATED AVAILABLE MANPOWER RESOURCES (June 1973)
AND STATE IMPLEMENTATION PLAN RESOURCE NEEDS

Region	State	Total budget positions		On Board		Equivalent man-years			SIP Estimates (M.Y.)	
		State	Local	State	Local	State	Local	Total	1973	1975
I	Connecticut	146	115	86	110	86.0	51.5	137.5	164.9	209.5
	Massachusetts	130	15	98	14	101.4	9.2	110.6	128.3	145.0
	Maine	24	0	15	0	15.0	0.0	15.0	9.0	24.0
	New Hampshire	23	0	13	0	13.0	0.0	13.0	17.0	29.0
	Rhode Island	18	0	14	0	14.0	0.0	14.0	19.7	24.0
	Vermont	19	0	16	0	15.1	0.0	15.1	10.0	11.9
	Subtotal	360	130	242	124	244.5	60.7	305.2	348.9	443.4
II	New Jersey	176	35	157	35	157.0	32.0	189.0	246.1	265.5
	New York	257	602	238	546	238.0	539.4	777.4	972.7	1,398.1
	Puerto Rico	47	0	34	0	34.0	0.0	34.0	35.9	57.9
	Virgin Islands	10	0	8	0	6.5	0.0	6.5	5.0	8.0
	Subtotal	490	637	437	581	435.5	571.4	1,006.9	1,259.7	1,729.6
III	Delaware	34	0	31	0	27.5	0.0	27.5	22.0	27.0
	Dist. of Columbia	25	0	19	0	17.8	0.0	17.8	31.0	39.5
	Maryland	89	131	79	127	80.6	123.7	204.3	199.3	213.0
	Pennsylvania	119	206	94	167	114.0	160.4	274.4	379.4	547.1
	Virginia	101	54	89	51	89.0	29.3	118.3	122.1	185.0
	W. Virginia	71	3	45	3	46.0	2.5	48.5	86.0	109.9
	Subtotal	439	394	357	348	374.9	315.9	690.8	839.8	1,121.5

Table 31 (con't)

Region	State	Total budget positions		On Board		Equivalent man-years			SIP Estimates (M.Y.)	
		State	Local	State	Local	State	Local	Total	1973	1975
IV	Alabama	42	41	36	30	29.6	30.0	59.6	72.8	91.5
	Florida	154	76	148	71	81.1	51.2	132.3	151.8	188.9
	Georgia	70	13	53	12	53.0	11.8	64.8	89.2	93.0
	Kentucky	104	34	68	34	52.9	34.0	86.9	141.0	156.0
	Mississippi	55	0	45	0	37.6	0.0	37.6	61.8	70.8
	North Carolina	83	73	77	72	77.0	49.8	126.8	133.8	190.5
	South Carolina	66	22	55	20	48.8	10.7	59.5	82.0	98.0
	Tennessee	85	58	81	56	78.6	55.5	134.1	161.3	173.0
	Subtotal	659	317	563	295	458.6	243.0	701.6	893.7	1,061.7
V	Illinois	125	214	116	209	116.0	195.0	311.0	352.2	354.2
	Indiana	39	71	25	70	25.0	66.0	91.0	147.8	162.1
	Michigan	58	92	52	89	50.0	91.0	141.0	163.3	208.0
	Minnesota	26	25	24	19	27.0	22.9	49.9	75.2	97.0
	Ohio	55	235	55	203	55.0	208.5	263.5	367.0	479.0
	Wisconsin	43	35	34	31	38.8	31.0	69.8	86.4	113.7
	Subtotal	346	672	306	621	318.8	614.4	933.2	1,191.9	1,414.0

Table 31 (con't)

Region	State	Total budget positions State	Total budget positions Local	On Board State	On Board Local	Equivalent man-years State	Equivalent man-years Local	Equivalent man-years Total	SIP Estimates (M.Y.) 1973	SIP Estimates (M.Y.) 1975
VI	Arkansas	24	0	24	0	24.0	0.0	24.0	30.0	39.0
	Louisiana	29	0	29	0	24.0	0.0	24.0	55.5	55.5
	New Mexico	51	17	51	16	42.0	15.0	57.0	43.5	48.4
	Oklahoma	38	35	38	34	36.0	28.0	64.0	70.7	94.8
	Texas	260	202	251	199	249.0	167.0	416.0	536.2	667.2
	Subtotal	402	254	393	249	375.0	210.0	585.0	735.9	904.9
VII	Iowa	40	30	38	29	25.0	12.2	37.2	48.2	52.2
	Kansas	36	34	36	34	25.4	13.2	38.6	42.7	49.0
	Missouri	32	94	26	91	25.5	85.7	111.2	141.7	203.8
	Nebraska	16	30	9	29	4.5	18.1	22.6	33.7	42.3
	Subtotal	124	188	109	183	80.4	129.2	209.6	266.3	347.3
VIII	Colorado	45	47	38	47	38.0	37.2	75.2	73.1	86.4
	Montana	23	15	22	15	14.4	7.0	21.4	26.5	26.5
	North Dakota	9	0	8	0	5.3	0.0	5.3	6.4	10.0
	South Dakota	10	0	10	0	3.1	0.0	3.1	9.0	12.0
	Utah	21	0	18	0	17.0	0.0	17.0	23.0	23.0
	Wyoming	8	0	8	0	7.7	0.0	7.7	16.0	18.0
	Subtotal	116	62	104	62	85.5	44.2	129.7	154.0	175.9

Table 31 (con't)

Region	State	Total budget positions State	Total budget positions Local	On Board State	On Board Local	Equivalent man-years State	Equivalent man-years Local	Equivalent man-years Total	SIP Estimates (M.Y.) 1973	SIP Estimates (M.Y.) 1975
IX	Arizona	71	41	42	41	48.0	42.0	90.0	88.0	109.0
	California	259	(601)[a]	248	(601)[a]	248.0	601.0	849.0	814.2	925.0
	Hawaii	23	0	27	0	20.0	0.0	20.0	19.0	27.5
	Nevada	5	20	9	23	3.7	19.8	23.5	37.9	43.7
	Amer. Samoa									
	Guam	5	0	6	0	5.1	0.0	5.1	4.2	5.2
	Subtotal	363	662	332	665	324.8	662.8	987.6	963.3	1,110.4
X	Alaska	12	11	12	11	7.0	8.0	15.0	13.7	15.0
	Idaho	12	0	12	0	6.0	0.0	6.0	16.5	19.7
	Oregon	35	49	34	48	33.0	48.0	81.0	84.5	100.3
	Washington	30	80	28	79	24.0	79.0	103.0	109.0	185.6
	Subtotal	89	140	86	138	70.0	135.0	205.0	223.7	320.6
	Grand Total	3388	3456	2929	3266	2768.0	2865.0	5754.6	6877.2	8629.3

[a] Estimated by CPDD (no information available from R.O.)

Equivalent man-years data for R.O.'s V and IX includes part-time assistance from "outside" agencies (e.g., Building Dept., Health Dept., etc.)

Part Six | National Issues Impacting on State Implementation Plans

A number of issues have developed since the SIP process began, most as a direct result of court decisions involving interpretation of the Clean Air Act. These court decisions have affected the approvability of State plans and have resulted in changing some plans from approved to disapproved status.

The impact that the following issues have had on SIPs are discussed in this section:

A. Significant Deterioration
B. Maintenance of Standards/Land Use Controls (Indirect Sources)
C. Supplementary Control Systems
D. Promulgation of Final Regulations for Copper Smelters
E. Regional Classification for Nitrogen Dioxide
F. Fugitive Dust
G. Tall Stacks
H. Definition of Reasonable Time to Attain Secondary Standards
I. Implementation of Clean Fuel Policy
J. Public Comment Prior to EPA Plan Approval
K. Variances

A. Significant Deterioration

On May 30, 1972, as the result of a suit filed by the Sierra Club, EPA was ordered by the District Court of the District of Columbia to disapprove all SIPs which do "not prevent significant deterioration of air quality" in currently clean areas and to promulgate new regulations which would prevent significant deterioration. The District Court order was appealed to the Court of Appeals where it was affirmed, and subsequently to the Supreme Court, which affirmed the decision by a tie vote.

As a result, all SIPs were disapproved on November 9, 1972, to the extent that they did not explicitly "prevent significant deterioration", and four alternative sets of regulations were proposed in the Federal Register of July 16, 1973.

EPA is soliciting widespread public participation in the rulemaking activity because, despite the extensive litigation, there is no guidance available regarding what level of deterioration is "significant", nor what procedures should be implemented to prevent that level of deterioration from occurring. To this end, public hearings on the significant deterioration issue were held in Washington, D.C. (August 27-28, 1973), Atlanta (September 4-5, 1973) and Dallas, Denver and San Francisco (September 5-6, 1973). A 90-day period for public comment has been established.

B. Maintenance of Standards/Land Use Controls (Indirect Sources)

As a result of the court order in Natural Resources Defense Council v Ruckelshaus, EPA has developed and promulgated regulations requiring that SIPs include procedures to prevent construction of "indirect sources" which would interfere with attainment and maintenance of the national standards.

The term "indirect source" has been used by EPA to describe facilities which indirectly cause air pollution by substantially increasing traffic, including shopping centers and sports arenas and other similar sources.

The court-ordered timetable for SIP actions involving indirect source review requirements is as follows:

March 2, 1973 - Advance notice of proposed rulemaking for an indirect source regulation and of disapproval of SIPs.

April 15, 1973 - Proposal of an indirect source regulation followed by a 30-day comment period.

June 11, 1973 - Promulgation of the indirect source regulations.

August 15, 1973 - State submittal of implementation plan revisions.

October 15, 1973 - Approval or disapproval of plan revisions by EPA.

December 15, 1973 - Final promulgation of EPA regulations for disapproved SIPs.

The first three events have been accomplished with the notice of proposed rulemaking and plan disapprovals being published on March 8, and the indirect source regulations proposed on April 18, 1973, and promulgated on June 18, 1973.

C. Supplementary Control Systems

A major issue related to implementation plans involves the question of supplementary control systems (SCS) as an acceptable control strategy. SCS is a relatively new term which replaces the former "intermittent control system (ICS)". SCS involves both the temporal variation of emission rate, based on expected meteorological conditions, to avoid high ground level concentrations during periods of poor dispersion potential and the use of tall stacks to lower ground-level concentration.

Early in September EPA proposed regulations containing the provisions outlined below and asked for public comment on them.

a. SCS would be authorized only in situations where its use is necessary to augment constant emission limitation techniques which are available to a specific source, and only until completely adequate emission limitation techniques become available; i.e., only in situations wherein the alternatives are either permanent production curtailment or delay of an attainment date for the national standards.

b. SCS would be authorized only in situations where it would exhibit a high degree of reliability and enforceability; i.e., only in situations wherein the emission source can be readily and unequivocally related to air quality.

As proposed these provisions will generally restrict the application of SCS to isolated copper smelters and some coal-fired power plants, and then only after application of all available constant emission limitation technology. The proposed regulations do not explicitly preclude consideration of other sources, but few other sources could meet the above criteria.

D. Copper Smelters

On May 31, 1972, EPA disapproved SIPs for Arizona, New Mexico, Nevada, Utah, Idaho, and Montana because they did not submit adequate plans to control sulfur dioxide from copper smelters. Regulations for control of these sources were proposed by EPA and public hearings on the regulations were held during August, September and October of 1972 at which time substantial comments were received. Numerous court suits have been filed by the individual copper smelters against the EPA proposed regulations.

Some of the important issues include the validity of the ambient air quality data upon which the proposed regulations were based, the accuracy of EPA's diffusion model analysis and the allegation that the Agency should have provided adjudicative hearings on the proposed regulations. The decision by the District Court of Colorado in the Anaconda case was recently overturned, thus resolving in EPA's favor the issues of whether or not EPA must file an environmental impact statement and hold adjudicative hearings.

The major issue with the smelters involves the use of supplementary control systems. If the Agency position becomes one of allowing the use of SCS under specified conditions to achieve national standards, it will have a significant impact on the Agency's proposed regulations in relation to smelters. Also, it appears that SCS will allow EPA to complete the development of control strategies to achieve secondary standards for which 18-month extensions were provided in each of the affected Regions.

E. Regional Classification for Nitrogen Dioxide

A Federal Register notice on June 8, 1973, proposed that 42 of the 47 AQCRs originally classified as Priority I be reclassified as Priority III. In addition, EPA revoked the disapprovals of SIPs for nitrogen dioxide control strategies for 18 AQCRs, revised the attainment date for 42 AQCRs and will withdraw and take no further action to promulgate proposed regulations to control oxides of nitrogen from stationary sources in 18 AQCRs.

The Federal Register notice on June 8, 1973, provided that all relevant comments received before July 23, 1973, would be considered in developing the final promulgation for reclassification of Regions for NO_x. As of that date, sixteen comments were received on the proposed reclassification. Seven comments concurred with EPA's proposed action, four disagreed and the remaining provided general comments on the national ambient air quality standard for NO_x.

The final action on the reclassification of AQCRs is scheduled for September 30, 1973.

The issue of a new proposed reference method will be open for comment until November 5, 1973, after which all relevant comments will be considered before a new reference method for the measurement of NO_x is promulgated.

F. Fugitive Dust

In May 31, 1972, Federal Register, EPA disapproved the SIPs for Nevada, California, Arizona and New Mexico for the control of particulate matter because these states failed to demonstrate attainment of both primary and secondary standards for particulate matter. The major reason for disapproving these plans was the inadequacy of the proposed strategies to control particulate matter from wind blown or fugitive dust. Very limited data were available at the time of plan disapproval on the sources of fugitive dust emissions in these States. EPA conducted a special study in these four southwestern states to develop emission factors for fugitive dust sources, define the extent of the fugitive dust problem and develop recommended control strategies to achieve the national standards.

The results of the study indicated that fugitive emissions from unpaved roads, agricultural lands, construction sites, material storage piles, tailings piles and animal feedlots cause a significant impact on ambient concentrations of particulate matter. The study also indicated that possibly disruptive controls may be needed in these areas to attain the national standards for particulate matter.

An issue paper presenting alternative courses of action for the fugitive dust problem has been prepared and forwarded to EPA Headquarters for review and final resolution of the fugitive dust issue.

It should be noted that several other western states including Kansas, Colorado, Nebraska, Iowa, Oklahoma and Texas are expected to have similar fugitive dust problems but these have not yet been evaluated.

As a result of the recent fugitive dust studies, it is expected that the fugitive dust problem may have been underestimated because of the lack of air quality data in some states. The extent of this problem will be more clearly defined as more air quality data are collected and analyzed.

Two additional studies concerning the problems with fugitive dust are currently underway in regard to developing an implementation plan to attain the national secondary standard for particulate matter in Idaho, Kansas and Nebraska. The preliminary results of these studies indicate that some type of fugitive dust regulations may be needed in these areas to develop a plan to attain the national secondary standard for particulate matter in these areas.

G. Tall Stacks

EPA has recently disapproved the control strategy portion of the Georgia State Implementation Plan because their regulations allowed more emissions from tall stacks than from shorter stacks, without other appropriate limitations and conditions. The plan disapproval action resulted from a court action. Other states may also have tall stack regulations similar to those of Georgia which will require a revision to this portion of their control strategy.

EPA has published a proposed policy statement on tall stacks in the Federal Register simultaneously with the supplementary control system proposal. The policy allows consideration of stack extensions as an acceptable control strategy only as part of existing stacks and additions to existing stacks up to the height called for by good engineering practice will be allowed without restrictions as a means of preventing violations of ambient air quality standards.

H. Definition of Reasonable Time to Attain Secondary Standards

The SCS proposals also modified the definition of "reasonable time" for attainment of secondary standards by specifying that "reasonable time" shall be the time required to design, fabricate, and install reasonably available control technology, as defined in Appendix B to the state plan guidelines. States could postpone application of such measures only in cases where the control strategy would have a severe adverse economic or social impact. It is expected that such postponements would be rare, but they could be necessary in special cases to prevent plant shutdown or to prevent massive replacement of recently installed equipment which would result in an inequitable economic impact. Any postponement beyond January 1, 1978, would be subject to periodic reevaluation at five-year intervals.

I. Implementation of Clean Fuel Policy

There is a problem of inadequate supplies of low sulfur fuel, primarily coal, for use by stationary combustion sources to meet State Implementation Plan sulfur dioxide emission regulations in the 1975-77 period. Basically, the problem arises because: 1) many plans define 1975 as a "reasonable time" to meet the more stringent secondary standards, and 2) many plans impose uniform emission regulations throughout the State, not accounting for regional differences in air quality.

An assessment of the aggregate impact of the State Implementation Plans produced strong evidence that complete implementation of the plans as submitted could not be accomplished everywhere within the time prescribed. Analyses completed by EPA in 1972 showed that through 1975, nationwide supplies of low sulfur coal would not be sufficient and stack gas cleaning would not be available to satisfy the aggregate requirements dictated by State regulations. Based on 1970 coal production, enforcement of State environmental regulations could render more than 150 million tons of high sulfur coal unusable. Additional supplies of coal or other fuels equivalent to 125 million tons of coal would also be required to meet the growth in energy demands over the 1971-75 period. The sulfur content of these new fuel supplies must meet applicable sulfur dioxide emission regulations. The problem of the availability of low sulfur coal is most severe for coal-burning utilities in the States in EPA Regions III, IV, and V where most of the nation's coal combustion occurs.

EPA's analysis indicated that some resolution of the coal problem could be achieved if sulfur regulations were revised or deferred where not required to meet the primary standard in 1975. This option resulted in the development of EPA policy of encouraging States with predicted coal deficits to revise coal sulfur regulations and to defer attainment of SO_2 secondary air quality standards consistent with "no significant deterioration" requirements. This policy was announced by the EPA Administrator in November 1972, and communicated to Governors of affected States in mid-December 1972.

There is sufficient flexibility in the Clean Air Act to allow States to delay enforcement of sulfur regulations so long as primary standards are achieved by the date stipulated in the SIPs. However, EPA has legislative authority only to ensure compliance with approved regulations in the State implementation plans. EPA does not have a legislative mandate to require states to delay enforcement of regulations which will achieve air quality better than needed to meet primary standards. EPA is encouraging States to request variances or plan revisions whenever this does not conflict with the goal of primary standards by 1975. However, the States must initiate such actions.

The clean fuels policy involves reducing emissions so that the primary standard is met by 1975 in areas not presently meeting this standard. It is expected that such emission reductions must occur in SO_2 Priority I and IA and some Priority II AQCRs although power plants located in isolated portions of some of these AQCRs may not significantly impact on the attainment of the primary standard. These isolated power plants and most coal-fired steam-electric plants in Priority III AQCRs may be candidates for variances or plan revisions under EPA's clean fuels policy, enabling them to continue to burn higher sulfur coal.

EPA's clean fuels policy is consistent with criteria relative to the significant deterioration issue. The fuels policy does not advocate unlimited increased emissions up to either the primary or secondary standard.

Some states already have regulations consistent with EPA's clean fuels policy. Michigan, in devising its SO_2 emission regulations considered two control strategies for all of the State except Wayne County which has separate regulations to deal with the difficult air quality problem in that county. One strategy, to be effective July 1, 1978, is based on attaining the secondary standard. Although Michigan's regulations apply statewide, regardless of AQCR priority, the plan has provision for allowing an existing source to demonstrate to the Michigan Air Pollution Control Commission that its fuel burning does not create, or contribute to, an ambient level of SO_2 in excess of the applicable ambient air quality standards and thereby to obtain a variance from the Commission to operate.

Other states are revising their State implementation plans in ways which move them toward EPA's clean fuels policy. For example, both Tennessee and Alabama are revising their SO_2 regulations to take into account the need for different control strategies in different parts of the States to meet air quality standards.

The Energy Policy Office published a notice of public hearing and proposed rulemaking on the "Establishment of Priorities of Use and Allocations of Supply for Certain Low Sulfur Petroleum Products", Federal Register, Vol. 38, No. 167 - August 29, 1973, and is attached as Appendix B.

J. Public Comment Prior to EPA Plan

As a reult of recent court decisions by the Third, Fourth, and Sixth Circuit Courts of Appeals, the Agency has modified the procedures for dealing with regulatory plan revisions and supplemental information. These court decisions required EPA to take comment on a State's plan concerning the "reasonableness" of the plan prior to publishing the approval/disapproval decision. Consequently, the public will be notified in the Federal Register of the opportunity to comment on all future plan revisions which are regulatory in nature. Although there are no plans to require public comment on previously approved SIPs, this is being done by Ohio, Kentucky, and Pennsylvania as a result of court decisions.

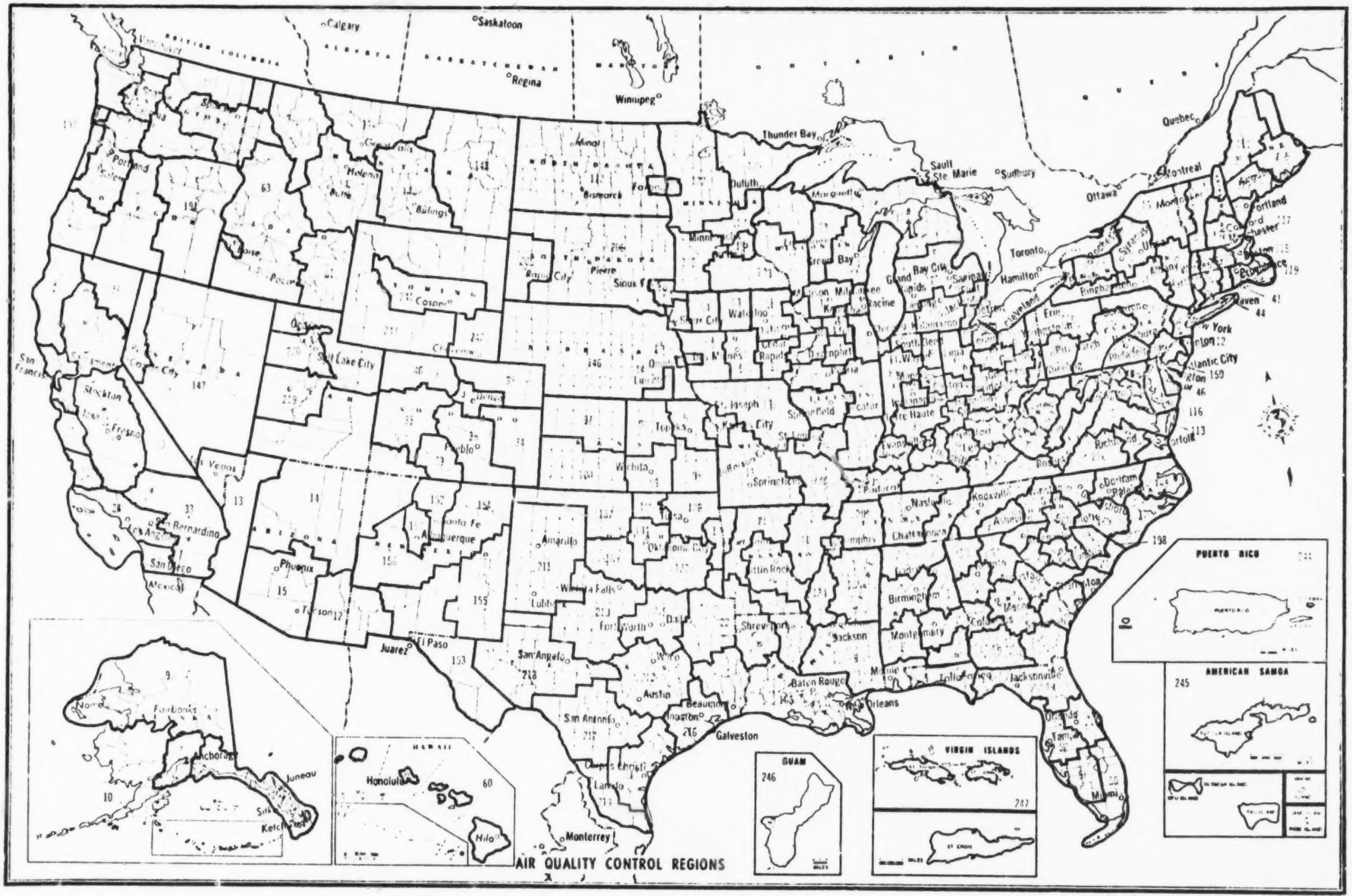
K. Variances

Variances (along with exceptions, enforcement orders and similar actions) are involved in efforts of State and local agencies in obtaining compliance with emission regulations. In general, these are actions to accommodate the problems of specific sources in achieving compliance. In the past, these agencies operated on the basis of their own laws, regulations and administrative procedures in granting special consideration to individual sources. Under the Clean Air Act, however, state and local actions must be in accordance with Federal requirements as well.

Some of these variances were extensions of interim compliance dates or emission limitations in a regulation with no alteration of the final compliance requirements. A more detailed analysis of these variances is presented in the enforcement activities section of this report. Several of the approved variances extended the date for compliance beyond the date established for attainment of the applicable national standards. In these cases, it was necessary for the State to either submit the variance as a control strategy revision along with a demonstration that the variance will not affect the attainment of the standards or to change the attainment date.

The legal authority of the States to grant variances of certain kinds under certain conditions has been challenged in Natural Resources Defense Council, Inc., et. al. v EPA, Case Nos. 72-1219 and 72-1224 (1st Circuit). The court found that the Administrator erred in approving the variance provisions of the Rhode Island and Massachusetts plans and ordered these provisions to be disapproved. The court found that prior to the mandatory deadline for attainment of the standards, i.e., 1975 (or 1977), States can defer compliance with control strategies with the approval of the Administrator provided such deferrals cease before the mandatory compliance data. After 1975, however, 110(f) of the Act is to be the exclusive mechanism for relief from this date in revising the plan. The effect of this decision on agency policy with regard to variances and enforcement orders is presently under consideration. In any event, after disapproval the Administrator must promulgate regulations for Rhode Island and Massachusetts specifying the limited terms, conditions and circumstances under which State variances may be issued.

Appendices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San Antonio
Houston
Beaumont
Galveston
Corpus Christi
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AIR QUALITY CONTROL REGIONS

APPENDIX B

ENERGY POLICY OFFICE

[32A CFR Chapter XIII]

ESTABLISHMENT OF PRIORITIES OF USE AND ALLOCATIONS OF SUPPLY FOR CERTAIN LOW SULFUR PETROLEUM PRODUCTS

Notice of Public Hearing and Proposed Rulemaking

On June 11–14, 1973, hearings were held concerning the operation of the voluntary allocation program for petroleum products and the need for a mandatory allocation program. These hearings indicated that the voluntary program had done significant good, but that difficulties were being experienced in certain parts of the country and in certain sectors of the industry.

In the Energy Policy Office statement of August 9, 1973, it was indicated that the current fuel situation had led the Administration to consider action which would temporarily prohibit utilities, industrial, and commercial firms from (a) switching from coal to petroleum or petroleum products, (b) switching from residual fuels to home heating fuels, or (c) increasing the quantity of distillates blended into residual fuel oil, except where such actions were absolutely necessary to meet primary (health related) ambient air quality standards.

As there may be insufficient supplies of petroleum products, especially home heating oils, to meet essential needs in certain parts of the country and to insure an adequate supply to the independent distributors and marketers, priorities for use and allocation of supplies for certain petroleum products are being established pursuant to section 203(a)(3) of the Economic Stabilization Act of 1970, as amended. Specifically, this regulation aims to prevent coal-to-oil fuel conversions and to delay shifts to lower sulfur content fuel oils than were in use as of the effective date of this regulation; except where such actions are required to achieve primary air quality standards.

Provisions to prohibit coal-to-oil switching except to achieve primary air quality standards are directly supportive of the Environmental Protection Agency's Clean Fuels Policy. That policy urges the States to delay attainment dates for secondary standards as they apply to coal-fired combustion sources and specifically discourages coal-to-oil switching, except to meet primary air quality standards. Under this proposal, coal burning sources will still be required to comply with State sulfur regulations except that they could not convert to oil unless such conversion is needed to meet primary air quality standards.

In view of the tight market for low sulfur fuel oil, the other provisions of the measure prohibit oil-burning sources from shifting to lower sulfur fuel oils than presently in use except to meet primary air quality standards. This measure does not roll back any gains already made in reducing the sulfur content of fuel oils under the Clean Air Act. It does impose a temporary halt in the trend toward lower sulfur content fuel oil wherever progress toward primary standards is not affected.

As required by section 203(a)(3) of the Economic Stabilization Act, a public hearing will be held on the proposed regulation. If the regulations are to become effective in time to significantly increase the supply of home heating oil available this winter, it is necessary to to shorten the notice period for the public hearing and comment. Therefore, the public hearing will be held in Washington, D.C., beginning at 9 a.m. (e.s.t.) Thursday, September 6, 1973, and continuing through Friday, September 7, 1973, in the auditorium of the United States Department of the Interior main building, 19th and E Streets, NW., Washington, D.C. 20240, for the purpose of receiving comments and testimony on all phases of the Proposed Program to Establish Priorities and Allocate Supply for Certain Low Sulfur Petroleum Products.

In addition, interested persons are invited to submit twenty (20) copies of any written comments on the proposal to the Office of Oil and Gas, Department of the Interior, Washington, D.C. 20240, Attention: Dr. Lisle Reed. Comments received no later than September 7th will be considered.

JOHN A. LOVE,
Director,
Energy Policy Office.

AUGUST 24, 1973.

A new chapter XIII is added to Title 32A CFR consisting of the following EPO-Reg. 2:

EPO REG 2—PRIORITIES FOR USE OF CERTAIN LOW SULFUR PETROLEUM PRODUCTS

Sec.
1 Purpose and Intent.
2 Definitions.
3 Boilers not currently burning petroleum products.
4 Boilers currently burning petroleum products.
5 New boilers.
6 Exceptions to meet primary ambient air quality standards.
7 Other exceptions.
8 Termination.

AUTHORITY: Sec. 203(a)(3) of the Economic Stabilization Act as amended by PL 93-28; 12 U.S.C. 1904 (Note); EO 11695, 38 FR 1473; COLC Order 33, 38 FR 20960.

Section 1 Purpose and intent.

The purpose of the regulation is to assure the optimum use of the limited supplies of low sulfur petroleum products in a manner consistent with the provisions of the Clean Air Act, as amended, and the Clean Fuels Policy of the Environmental Protection Agency. This regulation is not intended to affect or preempt the development of individual source compliance schedules or other actions associated with implementation of the Clean Air Act, except with regard to the timing of actual shifts to burning lower sulfur oil during the period this regulation is in effect.

To the extent that provisions of applicable State implementation plans requiring changes in fuel usage are not consistent with this regulation, the provisions of this regulation shall take precedence.

Sec. 2 Definitions.

(a) "Boiler" means any boiler, burner, or other combustor of fuel in any electric power generating plant or industrial or commercial plant having a firing rate of 250 million BTU/hour in commercial operation on or prior to the effective date of this regulation.

(b) "Petroleum Product" means petroleum, distillate fuel, residual fuel oil, or any other petroleum product.

(c) "Primary Air Quality Standards" means the national primary ambient air quality standards provided for in the Clean Air Act, as amended. (42 U.S.C. 1857 *et seq.*)

Sec. 3 Boilers not currently burning petroleum products.

No petroleum product shall be sold or otherwise provided to or accepted by any person for burning under boilers that were not using petroleum products on the effective date of this regulation. Automatic exception is granted for boilers converting from natural gas, provided that alternative fuels, such as coal cannot practically be utilized.

Sec. 4 Boilers currently burning petroleum products.

(a) Petroleum products may continue to be utilized by persons using them in boilers burning petroleum products on the effective date of this regulation except that:

(1) No petroleum product having a lower sulfur content, by weight, than any petroleum product in use in such a boiler during the month preceding the date hereof shall be sold or otherwise provided or accepted by any person or firm for use in such boiler;

(2) The aggregate quantity of petroleum product utilized by such person in any month subsequent to the date of

this regulation in any such boiler capable of burning coal and petroleum products shall not exceed the larger of the aggregate quantity of petroleum products consumed in the corresponding month of 1972 or in July 1973, except that the quantity of petroleum products burned may be increased in proportion to the increased output of steam.

(3) The quantity of distillate fuel oil utilized by such person in any month subsequent to the date of this regulation in any such plant shall not exceed the larger of the quantity of distillate fuel oil consumed in the corresponding month of 1972 or in July 1973, except that the quantity of distillate fuel oil burned may be increased in proportion to the increased output of steam.

(4) In order to discourage further increase in the indirect use of distillate fuels in the form of a mixture of distillate and residual fuel oils:

(i) No refiner, fuel dealer, or user, shall blend more distillate fuel oils into residual fuel oil than the greater of the quantities blended in the corresponding month of 1972, or in July 1973, except where essential to meeting primary standards.

(ii) No person shall use under a boiler a blended fuel containing a greater proportion of distillate fuels than the larger of

(A) the proportion included in the corresponding month of 1972, or

(B) the proportion included in July 1973, except where essential to meeting primary air standards.

(iii) Those quantities of fuels containing distillates that constitute plant or firm inventories as of the effective date of this regulation may be consumed by or sold for use in boilers until those quantities are depleted.

(b) This section is intended to preempt, in part, State Implementation Plans and associated individual source compliance schedules required under the Clean Air Act where these measures would:

(1) Cause existing oil burning sources to shift to a lower sulfur content fuel oil during the effective period of this regulation, and

(2) Where such actions are not required for the achievement of primary air quality standards.

Sec. 5 New Boilers.

(a) Any person with boilers which begin commercial operations after the effective date of this regulation shall not utilize any petroleum products with sulfur content by weight lower than that needed to meet primary ambient air quality standards or to comply with EPA new source standards. (b) This section is not intended to preempt the new source performance standards of the Clean Air Act, as amended. In the event this section conflicts with such standards, the provisions of the Clean Air Act prevail and the prohibitions in this section do not apply.

Sec. 6 Exceptions To Meet Primary Ambient Air Quality Standards.

(a) The Office of Oil and Gas in the Department of the Interior shall automatically grant exceptions to the prohibitions contained in these regulations when the use of petroleum products is properly certified by the appropriate State air pollution control agency to be essential to meeting the primary air quality standard of the air quality region in which the plant is located. (b) With respect to § 3, the Office of Oil and Gas shall grant exceptions pursuant to this section only when suitable alternative fuels are not available.

Sec. 7 Other Exceptions.

The Office of Oil and Gas may grant exceptions from the prohibitions of this regulation if:

(a) Any person subject to this regulation can demonstrate that compliance would cause an undue economic hardship; or

(b) Fuels necessary for compliance with this regulation are not available.

Sec. 8 Termination.

The provisions of this regulation shall be in effect for not longer than one year following its effective date, or until the expiration of Section 203(a)(3) of the Economic Stabilization Act of 1970, which ever occurs first.

[FR Doc.73-18444 Filed 8-27-73;2:45 pm]

APPENDIX **C**

National Ambient Air Quality Standards

	Primary Standards	Secondary Standards
Total Suspended Particulate	75 ug/m^3 annual 260 ug/m^3 (24 hr)*	60 ug/m^3 annual 150 ug/m^3 (24 hr)*
Sulfur Dioxide	80 ug/m^3 annual 365 ug/m^3 (24 hr)*	1300 ug/m^3 max 3 hr. concentration*
Nitrogen Dioxide	100 ug/m^3 annual	None
Hydrocarbon	160 ug/m^3(max 3 hr. concentration)* (6 to 9 a.m.)	None
Oxidant	160 ug/m^3(1 hour)*	None
Carbon Monoxide	10 mg/m^3 (8 hour)* 40 mg/m3 (1 hour)*	None

*Not to be exceeded more than one per year